

THE  
URBAN DISTRICT COUNCIL  
OF  
GREAT CROSBY.



ANNUAL REPORTS  
OF THE  
MEDICAL OFFICER OF HEALTH  
AND  
SANITARY INSPECTOR,  
FOR THE YEAR 1914.

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## GREAT CROSBY URBAN DISTRICT COUNCIL,

1914.

### SUMMARY.

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|                                          |    |    |    |        |
|------------------------------------------|----|----|----|--------|
| Area of District in acres (as corrected) | .. | .. | .. | 1,867  |
| Population (1901 Census)                 | .. | .. | .. | 7,555  |
| Population (1911     ,,     )            | .. | .. | .. | 12,274 |

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|                                                                              |       |
|------------------------------------------------------------------------------|-------|
| Birth Rate ..     ..     ..     ..     ..     ..     ..     ..     ..     .. | 20·04 |
| Death Rate of Residents (occurring in District)                              | 8·25  |

Per 1000 of the estimated population.

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|                                                      |       |
|------------------------------------------------------|-------|
| Death rate of Infants under 1 year per 1,000 Births  | 73·53 |
| Death Rate (of Residents in and out of the District) | 9·72  |

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#### RAINFALL—

|                                                                                                                   |       |        |
|-------------------------------------------------------------------------------------------------------------------|-------|--------|
| Rainfall for the past year ..     ..     ..     ..     ..                                                         | 29·94 | inches |
| The average rainfall for the preceding 39 years (1876-1914)<br>being ..     ..     ..     ..     ..     ..     .. | 29·74 | ,,     |

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#### TEMPERATURE—

|                                                |       |              |
|------------------------------------------------|-------|--------------|
| The mean temperature during the year ..     .. | 50·40 | degrees Fah. |
|------------------------------------------------|-------|--------------|

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Rateable Value, £88,421 | Rate, 3/7 in £ | No. of Occupied Houses, 2,887.

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*(The estimated population, January, 1915, was 13,781.)*

ANNUAL REPORT  
OF THE  
MEDICAL OFFICER OF HEALTH  
FOR 1914.

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THE CHAIRMAN AND MEMBERS OF THE  
GREAT CROSBY URBAN DISTRICT COUNCIL.

GENTLEMEN,

In submitting the Annual Health Report for 1914 I feel it is necessary that I should record in it the unusual and historical circumstance of the quartering in this District of some three thousand of His Majesty's troops. Never before, I believe, in the existence of the Urban District of Great Crosby, at any rate since it became an inhabited and residential district, has such a military spectacle been presented to the view of its residents. The bustle and stir in the military quarters, the drilling, marching of bodies of soldiers, and changing of guards, were interesting and new sights to the inhabitants.

On the 4th August, 1914, on the Declaration of War with Germany, the 5th and 8th Territorial Battalions of the King's Liverpool Regiment were at once drafted into this District. The former occupied the Merchant Taylors' Girls' School, and the latter the Alexandra Hall and the Council School in Coronation Road. They were in these quarters for two days, and were succeeded by the 3rd Battalion of the King's Liverpool Regiment, who took possession of the Alexandra Hall and the Council School, the Halsall Girls' School, and St. Luke's Boys' School; and by the 3rd Battalion the South Lancashires, who went to the Merchant Taylors' Girls' School, the St. Luke's Parish Hall, and a portion of SS. Peter and Paul's School.

The R.G.A. (T.F.) were in the Drill Hall in Coronation Road, while their guns and horses were installed in the field lying between Alexandra Road and Kilnyard Road.

A Company of Engineers occupied the Alexandra Hall along with the 3rd King's.

The Liberal Club was also occupied by some men of the 3rd King's, and at different periods by sections of signallers.

This state of matters lasted until the Schools were opened in September, when the troops were put out under canvas. The 3rd King's were then removed to Hightown, and the South Lancashires to the field on the south side of College Road, just outside our boundary. On the advent of the very cold weather, the men were put into billets in our District, of which they occupied some thirteen or fourteen large houses, all of which were untenanted. The names of these houses have been given to you in each of my monthly reports, as the houses were requisitioned. The South Lancashires remained in these houses from just before Christmas until their present Camp was ready for them.

I have gone somewhat fully into this matter in order to bring before your notice the great amount of extra work which was thrown on your Sanitary Staff by this sudden and unexpected occupation, by large bodies of men, of premises never designed for such a purpose, and whose sanitary arrangements were totally inadequate to the requirements of the occupants. With the exception of the Schools, we had to fit up latrines for almost all the premises, and have them connected with our sewers, for we were determined to avoid the pail and earth system.

On the arrival of the Regiments each quarter was visited and instructions given that your Sanitary Staff would daily remove all the dry refuse, for which purpose bins were supplied which the military scavengers filled. We were anxious to keep a strict watch on the proper disposal of all such refuse. The drains of the various quarters were ordered to be flushed daily, and some of them twice daily. To show that such precautions were absolutely necessary, it was no uncommon experience for our men to flush a drain in the morning and return in the evening to find it quite choked. It

was marvellous to find the variety of materials with which the drains were choked. The men evidently seemed to be ignorant of the capacity of a drain-pipe, or thought it was a convenient way of disposing for ever of articles which might be awkward or useless. Frequent flushing of the main sewers above these quarters was also ordered. This all necessitated daily visits to the different quarters by Mr. Wilson and myself, to see that instructions were being thoroughly carried out with regard to overcrowding and proper ventilation of the different billets. Mr. Wilson has been most indefatigable in the attention and oversight he has given to this work. Your Sanitary Staff have worked with rare energy and uncomplainingly, for this work required daily attention, including Sundays.

It might probably be of interest to you to have a description of the latrine, as fixed, at the various billets. It was constructed from 12 inch glazed earthenware, socket-jointed drain pipes, cut in half longitudinally, laid on concrete with a fall to the outlet, where there were a plug and an overflow. This outlet was formed by a 6 × 12 in. junction-pipe connected with a reducing piece to a 6 in. intercepting trap, and from this to the sewer. Concrete flags were attached to this structure as a riser, or heel board with a wooden rail placed on it to form a seat, a back rail as a rest. At the upper end of this trough a stand-pipe with a screw-nozzle was erected; to this was attached a hose for the purpose of washing the surroundings and filling the trough. The completed structure was enclosed either with canvas or corrugated iron sides and roof to form a screen, as its site required. A latrine of this description and 12 feet long was found amply sufficient for the needs of 180 men. The whole cost of such an arrangement was roughly about £3 15s.

A further wooden trough and table combined was also erected for the purposes of ablution, and in one or two instances a slipper bath was supplied.

Suitable galvanised iron receptacles with covers were provided for waste particles of food, &c., and the contents removed daily by pig-keepers.

From the foregoing paragraphs you will be able to form an idea of "the life strenuous" led by your Sanitary Officers at this period.

In concluding this portion of the report I think it will greatly interest you to know that two of your Sanitary Staff, namely, David Wilson and William Orme, have shewn their patriotism by joining His Majesty's Forces; the former is serving with the 6th Battalion of the King's Liverpool Regiment (T.F.), and has been at the front for some weeks, the latter has joined the Royal Garrison Artillery and is at present stationed at Hightown.

The Report in all other details is drawn up on the same principle as in previous years.

The area of the District is comprised of 1,867 statute acres above high-water mark. The Western Boundary is the sea-shore, is of very considerable extent, and is affected by the flow and ebb of the tide. The Eastern Boundary is the Township of Sefton and Thornton; the Northern is the Urban District of Little Crosby, both of which are purely agricultural districts; while the Southern is the Urban District of Waterloo-cum-Seaforth, the Waterloo portion of which is residential in character. This District of Great Crosby has always been and still is a growing and popular residential suburb of Liverpool.

The District is fairly flat, the highest point being 38 feet above high-water mark, which latter is 17 feet above Ordnance Datum, the highest part of it is therefore 55 feet above this. It is laid out somewhat on the lines of Boulevards, consisting of wide asphalted streets, planted with trees on each side. These streets are accordingly more easily swept and kept clean, and after a fall of rain the water runs off readily into the sewers. They are thus practically self-cleansing.

The sub-soil is principally sand overlying the boulder-clay throughout its greater area, while here and there red sandstone rock shows through. From this formation it will easily be seen that the district is particularly dry, and highly suitable as a healthy residential locality.

The population at the census of 1901 was 7,555, and at that of 1911 12,274. At the present time it stands at 13,781, that

is, as calculated on the basis of the census of 1911. The increase in population is still likely to continue during the coming year, as a considerable number of plans for new houses and for the laying-out of new streets have been received by the Council.

Many of the houses in the district command high rents. The number of dwelling-houses for the working classes form only a small proportion of the houses in the district. The accommodation for the working class is good, being principally four and six roomed houses. Every care is taken in the erection and supervision of the new buildings of this class ; the air space, etc., as required by the Bye-laws, being insisted upon.

Under the Towns Planning Act it was necessary to deal with one lot of property. To remedy insanitary conditions of two dwelling-houses, if the necessary structural alterations could be satisfactorily carried out from a sanitary point of view.

### **Water Supply.**

This district is supplied with water from the Liverpool Corporation mains.

The service is constant and the quality excellent.

No complaint has been found as to its bacteriological or chemical composition. Neither lead nor other deleterious matters have been detected in it.

### **Milk Supply.**

The milk supply is obtained chiefly from dairies in the district, very little being obtained from any outside source. The County police take samples of milk under " The Food and Drugs Act " for analysis.

No information has been received that any action had been found necessary to be taken by them against any of the purveyors of this commodity.

A case of suspected anthrax was notified by the County Police, and after bacteriological examination by the Local Government Board, was found to be a true case. The carcase was removed and

destroyed, as well as all dung, etc., and the premises were thoroughly cleansed and disinfected under the supervision of the Police.

Information was received on two occasions from the Waterloo-cum-Sèaforth Health Authority that samples of milk which had been taken from milkcarts on their rounds contained tubercle bacilli. An inspection of the herds and premises, from which the affected milk was reported to have come, was at once made by your Sanitary Staff. Expert examination was procured, and in one instance an animal with a tuberculous udder was discovered, and was at once removed to the Abbatoir, where the carcase was condemned. The milk taken from the rest of the herd shewed, after bacteriological examination, no further presence of tubercle bacilli. In the other instance, after expert examination of both the herd and milk, no trace of this disease was found.

The various dairies and cowsheds are periodically visited, and are always found in the best condition ; in fact, some of the cowsheds in this district are “ models ” of what a building of this description should be. Light and ventilation are amply provided, and the Regulations of the Local Government Board are duly enforced

### **Food and Drugs Act.**

The County police carry out all duties under the “ Food and Drugs Act,” and report any food, etc., which is likely to be detrimental to health, when, if necessary, joint action is taken for its destruction.

### **Sewerage and Drainage.**

During the past twelve months work of extension of main sewers, or leading arteries, has been executed ; but some spurs, or short sewers of a “ cul de sac ” description, have been carried out, more particularly for the purpose of draining streets of good-class cottages.

Strict attention is given to all drains and sewers, as well as to all connections with the latter, the same being tested and supervised during construction, with the view of bringing them into conformity with the requirements of modern sanitation.

~~The general~~ The general condition of the sewerage of the district has been duly attended to for the purpose of making it as efficient as possible.

The institution of tall iron ventilating shafts, as well as large lamp columns (in suitable positions), is being further extended throughout the district to the sewers as well as to the drains of both old and new property.

This system of ventilation is carried out as the sewers extend.

### **Watercourses.**

There are three watercourses in the district, viz., the "Carr Brook," the "Warrenhouse Brook," which form the south and east boundaries; and the watercourses forming the north and north-east side of the district, each flowing eventually to the sea.

Supervision has been given to them, and the owners of land on both sides of the watercourses are urged to keep them in a proper and cleanly state.

The water in these "brooks" is more or less polluted before entering our district, due to the nature of the country through which they pass, which is principally agricultural.

### **Excrement Disposal.**

The excremental matter in this district is conveyed to the sea by the "Water Carriage System," through gravitating sewers flushed by water obtained from the Liverpool Corporation. Some places, such as farmsteads, etc., still have the old-fashioned privy attached, principally to the middens which hold manure, etc. Some of these have, however, been converted into earth closets or to W.C's.

As the land develops, and the sewers extend, all classes of premises adjacent to such system of sewers are amended and brought up to modern ideas of sanitation.

The adoption of galvanized iron "dust bins" in old property is still strongly recommended, and compelled, where necessary, in place of the open and uncovered ashpits. This improvement is greatly appreciated, as a large number have been instituted during

this year, as in the past ; there being no doubt that ~~the abolition of~~ the long storage of ashpit refuse in bulk in open ashpits, in the near vicinity of dwelling-houses, is a menace to the public health, and that the use of galvanized iron ashbins, emptied weekly at least, prevents fermentation, and minimises the production of flies as disease carriers, if not producers.

This sanitary ashbin system is adopted in all new property.

The Council's staff remove the contents weekly from all ashbins, and also from the existing ashpits at frequent intervals, in properly constructed covered carts

In connection, however, with the Military Billets, the staff have daily emptied the bins at these quarters, so as to prevent any excessive accumulation of refuse.

The ashpit refuse is now deposited on the Council's Land in Brownmoor Lane, far from any dwellings.

### **Scavenging.**

The Council's staff carry out all the necessary scavenging, main roads being cleansed daily, and all others twice weekly, an arrangement of work which gives complete satisfaction.

### **Flushing of Main Sewers and House Drains.**

The system of flushing all the main and other sewers in the district is still carried out, as in the past, in a regular and efficient manner periodically throughout the year. The main sewers, where the most deposit is found to exist, are thoroughly cleansed by means of scraping with chains, brushes, etc.

The flushing of house drains is also efficiently carried out, more especially is this done on premises where infectious disease has occurred, and an ample supply of disinfectants is given to the inhabitants of these infected premises. The Council's staff supervise the use and distribution of disinfectants.

## **Nuisances.**

All complaints of nuisances from foul smells, arising from any source, whenever received, have had immediate attention, and subsequent investigation as to the cause of these nuisances has been carefully made by myself and the Sanitary Inspector, and, wherever necessary, the requisite Notices have been served.

## **Houses Let in Lodgings.**

The work carried out under this heading during the year has been as complete as in previous years. Many houses have been frequently visited, and a due watch has been kept as to any overcrowding or indecency, etc. Frequent visits were paid for the purpose of seeing that these premises were in a sanitary condition, and any other matters required by this order were duly taken cognisance of, and where necessary, remedied.

## **Public Elementary Schools.**

The health of the children attending these Schools has been so good that there was, fortunately, no necessity to have recourse to any Closing Order.

The various schools have been cleansed and thoroughly fumigated when they were closed during the holidays.

It would be a wise action if the School Authorities would substitute good rubber mats for the fibre mats or iron scrapers. The former can be thoroughly washed and cleansed daily, and would therefore harbour no infectious dust and dirt.

In all other respects the sanitary conditions of the schools are quite satisfactory.

The water-supply, which is ample and good, is obtained from the Liverpool Corporation mains

The drains have been flushed, treated with disinfectants, and cleansed as required.

## Infectious Diseases and Hospital Accommodation.

The Infectious Diseases Notification Act, 1889, is in force in this district.

All notifications received are duly enquired into, as well as the source from which the infection may have occurred. The cases are principally treated at their own homes when it is possible to properly isolate them; when, however, this cannot be carried out, the cases are removed to the Liverpool Infectious Diseases Hospital in their ambulance.

The District Council have an agreement with the Liverpool Corporation for the reception and treatment at their hospitals of all infectious diseases, which up to the present has been eminently satisfactory.

As soon as infectious cases are removed from the premises in which they occur, the rooms are fumigated with sulphur, all papers, etc., being subsequently stripped from the walls, and all necessary cleansing carried out. The same is done at the end of the period of convalescence, in connection with the cases treated at their own homes.

All bedding and clothing in contact with the patient are removed to the Council's "dry heat" stoves, and there treated.

The following table gives the number of patients removed to and treated in the Infectious Hospital for the past fourteen years:—

| Census<br>pop<br>1901 | 1902 | 1903 | 1904 | 1905 | 1906 | 1907 | 1908 | 1909 | 1910 | Census<br>pop.<br>1911 | 1912 | 1913 | 1914 |
|-----------------------|------|------|------|------|------|------|------|------|------|------------------------|------|------|------|
| 7                     | 17   | 16   | 10   | 10   | 6    | 16   | 13   | 25   | 11   | 11                     | 32   | 28   | 39*  |

\* Enteric 1, Scarlet Fever 30, and Diphtheria 8=39.

The average number of cases treated in Hospital for the past fourteen years is 17.2.

Table of all cases of Infectious Disease notified to me during the year, together with their localities, age, etc.

|                                | No. of<br>Cases<br>Notified. | Deaths. | No. sent<br>to<br>Hospital. | Age<br>of<br>Patients.              |
|--------------------------------|------------------------------|---------|-----------------------------|-------------------------------------|
| <b>SCARLET FEVER—</b>          |                              |         |                             |                                     |
| Brighton Road ... ..           | 8                            | ...     | 7                           | 3, 5, 6, 8, 9, 11, 13, 18 years     |
| Brighton Vale ... ..           | 1                            | ...     | 1                           | 9 years                             |
| Bridge Road ... ..             | 2                            | ...     | ...                         | 2 and 8 years                       |
| Brompton Avenue ... ..         | 1                            | ...     | ...                         | 3 years                             |
| Byron Road ... ..              | 1                            | ...     | ...                         | 9 years                             |
| Cambridge Road ... ..          | 1                            | ...     | ...                         | 9 years                             |
| Cambridge Avenue ... ..        | 1                            | ...     | ...                         | 3 years                             |
| Cavendish Road ... ..          | 2                            | ...     | ...                         | 4 and 9 years                       |
| Chestnut Avenue ... ..         | 1                            | ...     | ...                         | 4 years                             |
| College Road ... ..            | 1                            | ...     | 1                           | 7 years                             |
| Dowhills Road ... ..           | 2                            | ...     | ...                         | 5 and 11 years                      |
| Endbutt Lane ... ..            | 1                            | ...     | ...                         | 6 years                             |
| Forefield Lane ... ..          | 1                            | ...     | 1                           | 17 years                            |
| Hill Street ... ..             | 1                            | ...     | 1                           | 7 years                             |
| Islington ... ..               | 1                            | ...     | 1                           | 4 years                             |
| Kimberley Avenue ... ..        | 1                            | ...     | ...                         | 5½ years                            |
| Kingsway ... ..                | 1                            | ...     | ...                         | 8 years                             |
| Liverpool Road ... ..          | 1                            | ...     | 1                           | 11 years                            |
| Lupton's Cottages ... ..       | 1                            | ...     | 1                           | 6 years                             |
| Manor Road ... ..              | 1                            | ...     | ...                         | 15 years                            |
| Richmond Terrace ... ..        | 1                            | ...     | 1                           | 17 years                            |
| Rossett Road ... ..            | 1                            | ...     | 1                           | 5 years                             |
| Riverslea Road ... ..          | 1                            | ...     | ...                         | 7 years                             |
| Sunnyside Road ... ..          | 1                            | ...     | 1                           | 9 years                             |
| Vale Road ... ..               | 7                            | ...     | 6                           | 21 mos., 11, 14, 10, 8, 11, 13 yrs. |
| Victoria Road ... ..           | 2                            | ...     | ...                         | 23 and 34 years                     |
| York Road ... ..               | 7                            | ...     | 7                           | 3, 3, 5, 7, 7, 12, 18 years         |
| Total (29 Males, 21 Females)   | 50                           | ...     | 30                          | 50                                  |
| <b>DIPHTHERIA—</b>             |                              |         |                             |                                     |
| Brighton Road ... ..           | 1                            | ...     | 1                           | 8 years                             |
| Byron Road ... ..              | 1                            | ...     | 1                           | 6 years                             |
| Fairholme Road ... ..          | 1                            | ...     | ...                         | 46 years                            |
| King's Road ... ..             | 1                            | ...     | 1                           | 6 years                             |
| Liverpool Road ... ..          | 1                            | ...     | 1                           | 5 years                             |
| Little Crosby Road ... ..      | 1                            | ...     | 1                           | 17 years                            |
| Musker Street ... ..           | 2                            | ...     | 2                           | 2½ and 6 years                      |
| Myer's Road ... ..             | 2                            | ...     | ...                         | 5 and 8 years                       |
| Queen's Road ... ..            | 2                            | ...     | 1                           | 10 and 12 years                     |
| Witham Avenue ... ..           | 1                            | 1       | ...                         | *11 years                           |
| Woodville Avenue ... ..        | 1                            | ...     | ...                         | 6 years                             |
| Total (5 Males, 9 Females) ... | 14                           | 1       | 8                           | 14                                  |

\* Died.

Table of Notified Infectious Diseases—Continued.

|                                     | No. of<br>Cases<br>Notified. | Deaths. | No. sent<br>to<br>Hospital. | Age<br>of<br>Patients. |
|-------------------------------------|------------------------------|---------|-----------------------------|------------------------|
| Brought Forward...                  | 64                           | 1       | 38                          | 64                     |
| <b>ERYSIPELAS—</b>                  |                              |         |                             |                        |
| Brighton Road ... ..                | 1                            | ...     | ...                         | 50 years               |
| Kilnyard Road ... ..                | 1                            | ...     | ...                         | 17 years               |
| Liverpool Road ... ..               | 1                            | ...     | ...                         | 24 years               |
| Liverpool Road (Nazareth House) ... | 2                            | ...     | ...                         | 10 and 59 years        |
| Lune Street ... ..                  | 1                            | ...     | ...                         | 55 years               |
| Myer's Road West ... ..             | 1                            | ...     | ...                         | 45 years               |
| St. Luke's Road ... ..              | 1                            | ...     | ...                         | 24 years               |
| Total (8 Females) ... ..            | 8                            | ...     | ...                         | 8                      |
| <b>ENTERIC FEVER—</b>               |                              |         |                             |                        |
| Cambridge Road ... ..               | 1                            | ...     | 1                           | 36 years               |
| Grosvenor Avenue ... ..             | 1                            | ...     | ...                         | 63 years               |
| Nicholas Road South ... ..          | 1                            | ...     | ...                         | 21 years               |
| Victoria Road ... ..                | † 1                          | ...     | ...                         | 21 years               |
| Total (3 Males, 1 Female) ...       | 4                            | ...     | 1                           | 4                      |
| <b>PUERPERAL FEVER</b> ...          | 1                            | 1       | ...                         | *30 years              |
| <b>OPHTHALMIA NEONATORUM</b>        | 1                            | ...     | ...                         | birth                  |
| <b>PULMONARY TUBERCULOSIS—</b>      |                              |         |                             |                        |
| Alexandra Road ... ..               | 1                            | 1       | ...                         | *50 years              |
| Brighton Road ... ..                | 4                            | 1       | ...                         | 1, 5, 15, *32 yrs.     |
| Church Road ... ..                  | 1                            | 1       | ...                         | *57 years              |
| Coronation Road ... ..              | 1                            | ...     | ...                         | 32 years               |
| Dowhills Road ... ..                | 1                            | 1       | ...                         | *26 years              |
| Kimberley Drive ... ..              | 2                            | 1       | ...                         | 34 and *59 years       |
| Liverpool Road (Nazareth House) ... | 3                            | ...     | ...                         | 9, 9 and 10 years      |
| Marldon Avenue ... ..               | 1                            | ...     | ...                         | 23 years               |
| Manor Road ... ..                   | 1                            | ...     | ...                         | 26 years               |
| Regent Road ... ..                  | 2                            | ...     | ...                         | 14 and 24 years        |
| Sunnyside Road ... ..               | 2                            | 1       | ...                         | 3 and *29 years        |
| York Road ... ..                    | 2                            | ...     | ...                         | 16 and 33 years        |
| Total (9 Males, 12 Females)...      | 21                           | 6       | ...                         | 21                     |

† A Soldier.

\* Died.

Grand Total of Notified Infectious  
Cases, including Pulmonary  
Tuberculosis, etc ... ..

99

7

39

99

**Diphtheria.**

There has been a very appreciable decrease reported in the number of these cases. Last year we had to deal with thirty-eight notifications of persons attacked by this disease, while this year the number notified was fourteen, and comprised 5 males and 9 females.

Nine patients were removed to Hospital, where one female died ; the remainder were treated at home, and made good recoveries.

This welcome diminution in the prevalence of this trouble has been due to the great care taken in procuring " swabs " from the throats of residents in the affected households, and having a bacteriological report on them in order that all possible " carriers " of the disease might be at once put under treatment and kept rigidly away from School until the " swabs " gave a negative result.

Every child ought to be directed to gargle the throat and wash out the mouth night and morning with an antiseptic lotion. It is not merely a cleanly habit, but also tends to promote good health and prevent putrefaction, with the consequent development of micro organisms and poisoning of the system.

### **Erysipelas.**

The number of these cases remains much the same as last year. This year there was one less notified, the figures being nine last and eight this year. There were no admissions to Hospital and no deaths.

### **Scarlet Fever.**

This disease provided the bulk of our infectious cases, which amounted, under this heading, to fifty, whereas last year they only totalled seventeen. Twenty-nine of these cases were males and twenty-one females. Thirty persons were treated in Hospital. No deaths resulted from this disease.

It was prevalent all through the year, but became more marked on the advent of the troops into the district. There were no cases among the troops themselves, but their presence here brought a large number of " followers " mostly from the poorer areas of Liverpool, Bootle, and other towns. Whether infection was further increased by these people or not is not easy to prove. In the majority of the cases notified, the attack has been of an extremely mild character. One house alone supplied six cases, due to the fact that, when the first child became ill, no doctor was sent for, and he was allowed to sleep and play about with the others. A doctor was only called in when all the others became ill, when he found the boy, who had first been ill, desquamating.

### Enteric Fever.

Four notifications of this disease were received—3 males and one female. One case was sent to hospital. All four cases recovered.

One of these cases was a soldier, who was in one of the billets, and who had evidently contracted the disease before his arrival here. The greater number of the soldiers in the billet, and all those who slept with him in the same room, received the anti-typhoid vaccine. The room occupied by this man was thoroughly disinfected, the bedding burnt, and the men's clothes stoved. There was, fortunately, no other case from this source.

### Tuberculosis.

Notification of this disease comes under the Order of February, 1913, which requires notification to be made of every form of tubercular trouble. These notified cases totalled twenty-one for the year, and were five more than in the previous year. They consisted of nine males and twelve females. The deaths numbered six.

Several of these sufferers were removed to Sanatoria; some under the provisions of the National Health Insurance Act.

The usual records of these cases have been taken, disinfectants supplied when necessary, and the necessary instructions with regard to the destruction and disinfection of infected articles given.

It is difficult to get relatives to grasp the very great importance of having the patients' blankets more frequently washed, disinfected and changed. They are very particular about changing the pillowslips and sheets, for they show the dirt, but the woollen blankets, which hold any amount of the tubercle-laden mucus, are left on for weeks, or even months, and are bound to provide fresh infection. I believe many people, who can give no history of tubercular trouble in their families, have contracted it from such a source.

### Measles.

In order to try to prevent the spread of this disease among the younger members of the community, the following draft-circular was printed and distributed among the residents and placed conspicuously in the windows of the various shops:—

**“ MEASLES.**

It is necessary to point out to parents how great a mistake it is to regard an attack of measles as a matter of comparatively little importance. It is a highly contagious disease, and one that requires most careful medical treatment. The mortality from it in young and delicate children is high, owing to the complications which very often arise during the course of the disease. Some of these complications may give rise to very serious and permanent defects. It is therefore essential, especially during the prevalence of an epidemic, and in order to, if possible, prevent an epidemic, to isolate at once a child who complains of chilliness, headache, frequent sneezing, running from the eyes and nostrils, a troublesome dry cough, and to send for the medical attendant. The other members of the family should not be allowed to attend school nor mix with other children until they have received medical permission.”

**Puerperal Fever.**

One case reported, and terminated fatally.

**Ophthalmia Neonatorum.**

One infant contracted this disease, and was treated at home.

**Plague.**

Provision is arranged with the Liverpool Corporation for accommodation and treatment in case of an epidemic of Plague.

**“ Contacts.”**

Medical Officers of Health for other districts reported six cases of contact with small pox. These were duly visited and vaccination suggested ; nothing, however, transpired requiring further action.

**Health and Sanitary Condition of the District.**

The health of the District during the past year has been remarkably good, for, with the exception of the prevalence of a very mild form of scarlet fever, there has been a marked freedom from any

other infectious trouble. This is a matter for congratulation, considering the great strain put upon the sanitary arrangements of the District by the presence of so many troops, and by the coming forwards and backwards of the numerous friends and families of these men from almost all parts of West Lancashire. Infectious cases, including twenty-one cases of tuberculosis, reach a total of ninety-nine, compared with eighty-one last year. The death-rate this year is also slightly higher than that of last year, and works out at 9.72 as compared with 9.16, but, of course, we are also dealing with a slightly larger population. The weather, generally, throughout the year was conducive to good health, and in the summer and early autumn months was not too hot and debilitating, for there were only two deaths registered of persons suffering from diarrhoea, and one was that of an infant under one year of age.

The Zymotic Death Rate is pleasingly low, being only 0.36 per 1000 of the estimated population.

### **New Houses, etc.**

The Surveyor reports that from Dec. 31, 1913, to Jan. 1, 1915, 50 sets of plans of premises have been approved, and 19 houses have been completed in accordance with the bye-laws; also 12 houses which are partially in Crosby and partially in Waterloo.

### **Inspection of the District.**

I have, together with the Sanitary Inspector, Mr. Samuel Wilson, at various periods, systematically inspected the District; and any matters requiring amendment have been immediately taken in hand and satisfactorily dealt with.

Many other inspections have, of course, been required, of which you have had reports at your monthly meetings.

In the Inspector's report appended will be found a detailed account of the action taken.

### Birth Rate.

The number of births registered in the district during the year were 158 males and 114 females, the total being 272, giving a birth rate of **20.04** per 1,000 ; while those for last year were 132 males and 140 females, total 272.

**Birth Rate for the past year is 20.04.**

| Census<br>pop.<br>1901 | 1902 | 1903 | 1904 | 1905 | 1906 | 1907 | 1908 | 1909 | 1910 | Census<br>pop.<br>1911 | 1912  | 1913  | 1914         |
|------------------------|------|------|------|------|------|------|------|------|------|------------------------|-------|-------|--------------|
| 21'44                  | —    | —    | —    | —    | —    | —    | —    | —    | —    | 20.20                  | 19.04 | 20.42 | <b>20.04</b> |

### Infantile Death Rate.

The number of deaths of infants per 1,000 births registered is the same as last year, viz :—20, giving a death rate of **73.53**.

### General Death Rate.

The deaths registered of residents in and out of the district, and belonging thereto, is **132** (62 males and 70 females), showing a death rate of **9.72** per 1,000 of the estimated population, the number last year being 122 (68 males and 54 females).

| Deaths Registered in this District only. |      |      |      |      |      |      |       |      |             |
|------------------------------------------|------|------|------|------|------|------|-------|------|-------------|
| Census<br>pop.<br>1901                   | 1902 | 1903 | 1904 | 1905 | 1906 | 1911 | 1912  | 1913 | 1914        |
| 12'57                                    | —    | —    | —    | —    | —    | 9'12 | 11'69 | 7'66 | <b>8'25</b> |

| Deaths Registered in and out of District. |      |      |      |                        |       |      |             |
|-------------------------------------------|------|------|------|------------------------|-------|------|-------------|
| 1907                                      | 1908 | 1909 | 1910 | Census<br>pop.<br>1911 | 1912  | 1913 | 1914        |
| —                                         | —    | —    | —    | 10'83                  | 13'16 | 9'16 | <b>9'72</b> |

TABLE I. Vital Statistics of Whole District during 1914 and Previous Years.

| Year. | Population estimated to middle of each year. | BIRTHS               |                        | TOTAL DEATHS REGISTERED IN THE DISTRICT. |                                             | TRANSFERABLE DEATHS.                         |         | NETT DEATHS BELONGING TO THE DISTRICT. |         |              |
|-------|----------------------------------------------|----------------------|------------------------|------------------------------------------|---------------------------------------------|----------------------------------------------|---------|----------------------------------------|---------|--------------|
|       |                                              |                      |                        |                                          |                                             |                                              |         | Under 1 Year of Age.                   |         | At all Ages. |
|       |                                              | Un-corrected Number. | Nett.<br>Number. Rate. | Number. Rate.                            | of Non-residents registered in the District | of Residents not registered in the District. | Number. | Rate per 1,000 Nett Births.            | Number. | Rate.        |
| 1909  | 13,713                                       | ..                   | 254 18.52              | 108 7.94                                 | 3                                           | 18                                           | 17      | 66.53                                  | 123     | 8.96         |
| 1910  | 14,300                                       | ..                   | 247 17.27              | 105 7.34                                 | 2                                           | 20                                           | 28      | 113.35                                 | 123     | 8.60         |
| 1911  | 12,274                                       | 12,274               | 248 20.20              | 112 9.12                                 | 6                                           | 27                                           | 21      | 72.91                                  | 133     | 10.83        |
| 1912  | 12,916                                       | 12,916               | 246 19.04              | 151 11.69                                | 7                                           | 26                                           | 21      | 85.36                                  | 170     | 13.16        |
| 1913  | 13,314                                       | 13,314               | 272 20.42              | 102 7.66                                 | 11                                          | 31                                           | 20      | 73.52                                  | 122     | 9.16         |
| 1914  | 13,568                                       | 13,568               | 272 20.01              | 112 8.25                                 | 10                                          | 30                                           | 20      | 73.53                                  | 132     | 9.72         |

AT CENSUS OF 1911.—Total Population at all ages 12,274. Number of inhabited houses 2,570. Average number of persons per house 4.56. Area of District in acres (land and inland water) 1,867.

Institutions within the District receiving sick and infirm persons from outside the District—Nazareth House, Liverpool Road, Great Crosby.

Institutions outside the District receiving sick and infirm persons from the district—Hatherley House, Waterloo; Liverpool Institutions; Bootle Institutions.

Is the Union Workhouse within the District? No

TABLE II.—Cases of Infectious Disease notified during the Year 1914.

| NOTIFIABLE<br>DISEASE                      | CASES NOTIFIED IN WHOLE DISTRICT |                |         |          |           |           |          |                   |                                             |
|--------------------------------------------|----------------------------------|----------------|---------|----------|-----------|-----------|----------|-------------------|---------------------------------------------|
|                                            | At all<br>Ages                   | At Ages—Years. |         |          |           |           |          |                   | Total<br>Cases<br>removed<br>to<br>Hospital |
|                                            |                                  | Under 1.       | 1 to 5. | 5 to 15. | 15 to 25. | 25 to 45. | 45 to 65 | 65 and<br>upwards |                                             |
| Small Pox .. ..                            | ..                               | ..             | ..      | ..       | ..        | ..        | ..       | ..                | ..                                          |
| Diphtheria (including<br>Membranous Croup) | 14                               | ..             | 1       | 11       | 1         | ..        | 1        | ..                | 8                                           |
| Erysipelas .. ..                           | 8                                | ..             | ..      | 1        | 3         | ..        | 4        | ..                | ..                                          |
| Scarlet Fever ..                           | 50                               | ..             | 10      | 33       | 6         | 1         | ..       | ..                | 30                                          |
| Enteric Fever ..                           | 4                                | ..             | ..      | ..       | 2         | 1         | 1        | ..                | 1                                           |
| Puerperal Fever ..                         | 1                                | ..             | ..      | ..       | ..        | 1         | ..       | ..                | ..                                          |
| Pulmonary Tuber-<br>culosis .. ..          | 17                               | ..             | ..      | 4        | 4         | 6         | 3        | ..                | ..                                          |
| Other forms of<br>Tuberculosis..           | 4                                | ..             | 2       | 1        | ..        | 1         | ..       | ..                | ..                                          |
| Ophthalmia Ne-<br>onatorum ..              | 1                                | 1              | ..      | ..       | ..        | ..        | ..       | ..                | ..                                          |
| Totals .. ..                               | 99                               | 1              | 13      | 50       | 16        | 10        | 9        | ..                | 39                                          |

ISOLATION HOSPITAL : Liverpool Corporation Infectious Hospital.

SANATORIA : None provided at present.

TABLE III. Causes of, and Ages at, Death during 1914.

| CAUSES OF DEATH.                                                  | Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District. |              |               |               |                |                 |                 |                 |                 | Total Deaths, whether of Residents or Non-residents, in Public Institutions in the District. |
|-------------------------------------------------------------------|------------------------------------------------------------------------------------------|--------------|---------------|---------------|----------------|-----------------|-----------------|-----------------|-----------------|----------------------------------------------------------------------------------------------|
|                                                                   | ALL AGES.                                                                                | Under 1 year | 1 and under 2 | 2 and under 5 | 5 and under 15 | 15 and under 25 | 25 and under 45 | 45 and under 65 | 65 and upwards. |                                                                                              |
| All causes { Certified (c)<br>Uncertified                         | 131<br>1                                                                                 | 20<br>..     | 1<br>..       | 4<br>..       | 2<br>1         | 6<br>..         | 21<br>..        | 40<br>..        | 37<br>..        | 10<br>..                                                                                     |
| Enteric Fever .. ..                                               | ..                                                                                       | ..           | ..            | ..            | ..             | ..              | ..              | ..              | ..              | ..                                                                                           |
| Small Pox .. ..                                                   | ..                                                                                       | ..           | ..            | ..            | ..             | ..              | ..              | ..              | ..              | ..                                                                                           |
| Measles .. ..                                                     | ..                                                                                       | ..           | ..            | ..            | ..             | ..              | ..              | ..              | ..              | ..                                                                                           |
| Scarlet Fever .. ..                                               | ..                                                                                       | ..           | ..            | ..            | ..             | ..              | ..              | ..              | ..              | ..                                                                                           |
| Whooping Cough ..                                                 | 2                                                                                        | 2            | ..            | ..            | ..             | ..              | ..              | ..              | ..              | ..                                                                                           |
| Diphtheria and Croup ..                                           | 1                                                                                        | ..           | ..            | ..            | 1              | ..              | ..              | ..              | ..              | ..                                                                                           |
| Influenza .. ..                                                   | 1                                                                                        | ..           | ..            | ..            | ..             | ..              | 1               | ..              | ..              | ..                                                                                           |
| Erysipelas .. ..                                                  | ..                                                                                       | ..           | ..            | ..            | ..             | ..              | ..              | ..              | ..              | ..                                                                                           |
| Phthisis (Pulmonary Tuberculosis)                                 | 7                                                                                        | ..           | ..            | ..            | ..             | ..              | 1               | 6               | ..              | 2                                                                                            |
| Tuberculous Meningitis..                                          | ..                                                                                       | ..           | ..            | ..            | ..             | ..              | ..              | ..              | ..              | ..                                                                                           |
| Other tub'culous diseases                                         | 4                                                                                        | 1            | ..            | ..            | ..             | 3               | ..              | ..              | ..              | ..                                                                                           |
| Cancer, malignant disease                                         | 14                                                                                       | ..           | ..            | ..            | ..             | 1               | 3               | 6               | 4               | 1                                                                                            |
| Rheumatic Fever .. ..                                             | ..                                                                                       | ..           | ..            | ..            | ..             | ..              | ..              | ..              | ..              | ..                                                                                           |
| Meningitis .. ..                                                  | 2                                                                                        | 1            | ..            | 1             | ..             | ..              | ..              | ..              | ..              | ..                                                                                           |
| Organic Heart Disease..                                           | 17                                                                                       | ..           | ..            | ..            | ..             | 1               | 4               | 6               | 6               | 1                                                                                            |
| Bronchitis .. ..                                                  | 10                                                                                       | ..           | ..            | ..            | ..             | ..              | ..              | 3               | 7               | ..                                                                                           |
| Pneumonia (all forms) ..                                          | 14                                                                                       | 1            | 1             | ..            | 1              | ..              | 2               | 2               | 7               | ..                                                                                           |
| Other Diseases of the Respiratory Organs                          | ..                                                                                       | ..           | ..            | ..            | ..             | ..              | ..              | ..              | ..              | ..                                                                                           |
| Diarrhoea and Enteritis..                                         | 2                                                                                        | 1            | ..            | ..            | ..             | ..              | 1               | ..              | ..              | ..                                                                                           |
| Appendicitis and Typhlitis                                        | 1                                                                                        | ..           | ..            | ..            | ..             | ..              | 1               | ..              | ..              | ..                                                                                           |
| Cirrhosis of Liver .. ..                                          | 1                                                                                        | ..           | ..            | ..            | ..             | ..              | ..              | 1               | ..              | ..                                                                                           |
| Alcoholism .. ..                                                  | 1                                                                                        | ..           | ..            | ..            | ..             | ..              | ..              | 1               | ..              | ..                                                                                           |
| Nephritis and Bright's Disease                                    | 7                                                                                        | ..           | ..            | ..            | ..             | ..              | 1               | 4               | 2               | ..                                                                                           |
| Puerperal Fever.. ..                                              | 1                                                                                        | ..           | ..            | ..            | ..             | ..              | 1               | ..              | ..              | ..                                                                                           |
| Other accidents and diseases of Pregnancy and Parturition         | 1                                                                                        | 1            | ..            | ..            | ..             | ..              | ..              | ..              | ..              | ..                                                                                           |
| Congenital Debility and Malformation (including Premature Birth.. | 10                                                                                       | 10           | ..            | ..            | ..             | ..              | ..              | ..              | ..              | 1                                                                                            |
| Violent Deaths (excluding Suicide)                                | 2                                                                                        | 1            | ..            | ..            | ..             | ..              | 1               | ..              | ..              | 1                                                                                            |
| Suicides .. ..                                                    | ..                                                                                       | ..           | ..            | ..            | ..             | ..              | ..              | ..              | ..              | ..                                                                                           |
| Other Defined Diseases                                            | 34                                                                                       | 2            | ..            | 3             | 1              | 1               | 5               | 11              | 11              | 4                                                                                            |
| Diseases ill-defined or unknown                                   | ..                                                                                       | ..           | ..            | ..            | ..             | ..              | ..              | ..              | ..              | ..                                                                                           |
| All causes .. ..                                                  | 132                                                                                      | 20           | 1             | 4             | 3              | 6               | 21              | 40              | 37              | 10                                                                                           |

TABLE IV. Infantile Mortality During the Year 1914.

Deaths from stated Causes in Weeks and Months under One Year of Age.

| CAUSE OF DEATH.                      | Under 1 week | 1-2 weeks | 2-3 weeks | 3-4 weeks | Total under 1 month        | 1-3 months              | 3-6 months | 6-9 months | 9-12 months | Total Deaths under 1 year. |
|--------------------------------------|--------------|-----------|-----------|-----------|----------------------------|-------------------------|------------|------------|-------------|----------------------------|
| <b>All Causes.</b>                   |              |           |           |           |                            |                         |            |            |             |                            |
| Certified ... ..                     | 8            | ...       | ...       | ...       | 8                          | 5                       | 1          | 3          | 3           | 20                         |
| Uncertified ... ..                   | ...          | ...       | ...       | ...       | ...                        | ...                     | ...        | ...        | ...         | ...                        |
| Small-pox ... ..                     | ...          | ...       | ...       | ...       | ...                        | ...                     | ...        | ...        | ...         | ...                        |
| Chicken-pox ... ..                   | ...          | ...       | ...       | ...       | ...                        | ...                     | ...        | ...        | ...         | ...                        |
| Measles ... ..                       | ...          | ...       | ...       | ...       | ...                        | ...                     | ...        | ...        | ...         | ...                        |
| Scarlet Fever ... ..                 | ...          | ...       | ...       | ...       | ...                        | ...                     | ...        | ...        | ...         | ...                        |
| Whooping Cough ... ..                | ...          | ...       | ...       | ...       | ...                        | ...                     | ...        | 1          | 1           | 2                          |
| Diphtheria and Croup ... ..          | ...          | ...       | ...       | ...       | ...                        | ...                     | ...        | ...        | ...         | ...                        |
| Erysipelas ... ..                    | ...          | ...       | ...       | ...       | ...                        | ...                     | ...        | ...        | ...         | ...                        |
| Tuberculous Meningitis ... ..        | ...          | ...       | ...       | ...       | ...                        | ...                     | ...        | ...        | ...         | ...                        |
| Abdominal Tuberculosis ... ..        | ...          | ...       | ...       | ...       | ...                        | ...                     | ...        | ...        | ...         | ...                        |
| Other Tuberculous Diseases ... ..    | ...          | ...       | ...       | ...       | ...                        | 1                       | ...        | ...        | ...         | 1                          |
| Meningitis (not Tuberculous) ... ..  | ...          | ...       | ...       | ...       | ...                        | ...                     | ...        | ...        | 1           | 1                          |
| Convulsions ... ..                   | ...          | ...       | ...       | ...       | ...                        | 1                       | ...        | ...        | 1           | 2                          |
| Laryngitis ... ..                    | ...          | ...       | ...       | ...       | ...                        | ...                     | ...        | ...        | ...         | ...                        |
| Bronchitis ... ..                    | ...          | ...       | ...       | ...       | ...                        | ...                     | ...        | ...        | ...         | ...                        |
| Pneumonia (all forms) ... ..         | ...          | ...       | ...       | ...       | ...                        | ...                     | ...        | 1          | ...         | 1                          |
| Diarrhœa ... ..                      | ...          | ...       | ...       | ...       | ...                        | ...                     | 1          | ...        | ...         | 1                          |
| Enteritis ... ..                     | ...          | ...       | ...       | ...       | ...                        | ...                     | ...        | ...        | ...         | ...                        |
| Gastritis ... ..                     | ...          | ...       | ...       | ...       | ...                        | ...                     | ...        | ...        | ...         | ...                        |
| Syphilis ... ..                      | ...          | ...       | ...       | ...       | ...                        | ...                     | ...        | ...        | ...         | ...                        |
| Rickets ... ..                       | ...          | ...       | ...       | ...       | ...                        | ...                     | ...        | ...        | ...         | ...                        |
| Suffocation, overlying ... ..        | ...          | ...       | ...       | ...       | ...                        | ...                     | ...        | ...        | ...         | ...                        |
| Injury at Birth ... ..               | 1            | ...       | ...       | ...       | 1                          | ...                     | ...        | ...        | ...         | 1                          |
| Atelectasis ... ..                   | ...          | ...       | ...       | ...       | ...                        | ...                     | ...        | ...        | ...         | ...                        |
| Congenital Malformations ... ..      | ...          | ...       | ...       | ...       | ...                        | ...                     | ...        | ...        | ...         | ...                        |
| Premature Birth ... ..               | 1            | ...       | ...       | ...       | 1                          | 1                       | ...        | ...        | ...         | 2                          |
| Atrophy Debility and Marasmus ... .. | 6            | ...       | ...       | ...       | 6                          | 1                       | ...        | 1          | ...         | 8                          |
| Other causes ... ..                  | ...          | ...       | ...       | ...       | ...                        | 1                       | ...        | ...        | ...         | 1                          |
|                                      | 8            | ...       | ...       | ...       | 8                          | 5                       | 1          | 3          | 3           | 20                         |
| NETT BIRTHS IN THE YEAR—             |              |           |           |           | NETT DEATHS IN THE YEAR OF |                         |            |            |             |                            |
| Legitimate .. ..                     | 271          | } 272     |           |           |                            | Legitimate Infants ..   | 19         | } 20       |             |                            |
| Illegitimate .. ..                   | 1            |           |           |           |                            | Illegitimate Infants .. | 1          |            |             |                            |

## Summary of Medical Officer's Report for 1914.

What is the character of the Hospital Accommodation?—For Small-pox—*Good*. For other Infectious Diseases—*Excellent*.

Is it Joint or otherwise?—*The Council, by Agreement, use the Liverpool Corporation Infectious Hospitals. Fees for maintenance only being paid.*

Number of Beds available for your District?—For Small-pox—*As many as required*. For other Infectious Diseases—*As many as required*.

Number of cases removed to Hospital from your District?—Small-pox, *None*; Enteric Fever, **1**; Diphtheria, **8**; Continued Fever, *None*. Scarlet Fever, **30**. Total, **39**.

Deaths in Hospital of patients from your District? From what causes?—*None*.

How is Disinfection carried out? Houses—*By Sulphur Fumigation*. Number of Houses disinfected?—**101**, and **259 Rooms**. Apparatus used for Clothing, Bedding, etc. (steam or otherwise)?—*Gas, Dry Heat*. Where is apparatus situated?—*In Council's Store Yard*.

Are any Diseases not specifically mentioned in the Infectious Diseases Notification Act notifiable (for instance, Measles, Whooping Cough, Diarrhœa, Chicken Pox)? If so, what are they?—*All diseases specified in the Act*.

Diseases specially prevalent?—*Scarlet Fever in a mild form*. Period?—*Throughout the year*.

Any Schools Closed?—*None*. If so, for what disease?—*Nil*.

Number of Special Reports made under Art. XIX. (15 and 16) Sanitary Officers' Order, 1910?—*None*.

Bacteriological Examinations. Number and nature of specimens examined?—*For Diphtheria, "Swabs," for the purpose of detecting "Carriers."*

Arrangement (if any) made under the Diphtheria Anti-toxin Order, 1910?—*The provision of Anti-toxin for poor people*.

Summary of Medical Officer's Report for 1914—*Contd.*

“The Housing of the Working Classes Acts, 1890 to 1909.”—Has your Authority determined the procedure to be adopted for the inspection of your District as required by Article 1 of the Regulations?—*Yes*. Has your Authority prepared, as required by Article 1 (3), a list of dwelling-houses, the early inspection of which is desirable?—*No*. Has your Authority designated an officer to undertake the special inspection of houses and to keep the records stipulated by Article 2. If so, what officer?—*M.O.H. and Inspector of Nuisances*. Have the necessary books, etc., for keeping the required records been obtained?—*Yes*.

Action taken in 1914—Number of Dwelling-houses inspected under Sec. 17 of the Act of 1909?—*Two*. Number of Dwelling-houses considered unfit for human habitation?—*Two*. Number of Representations to Authority with a view to making Closing Orders?—*Allowed to stand over pending Sanitary Amendments*. Number of Closing Orders made?—*None*. Number of Dwelling-houses in which defects were remedied without making Closing Orders?—*Two*. Number of Dwelling-houses put into a fit state of habitation after making Closing Orders?—*None*. Number of Dwelling-houses demolished?—*None*. General character of defects found to exist?—*Drainage Defects, Water Supplies, W.C. Amendments, Dampness, and Defective Ventilation and Lighting*.

Is there a deficiency of housing accommodation? If so, where?—*No*.

Source of the Water Supply?—*Liverpool Corporation Water Works*. What is its condition?—*Very good*. Is it subject to your inspection?—*Yes, if necessary*.

Is Scavenging and Removal of House Refuse carried out satisfactorily?—*Yes*. How performed (by Sanitary Authority, Contract, or Occupiers of Houses)?—*By Council's own Staff*. How is the Refuse disposed of?—*On low-lying land, and covered with soil*.

Has a Destructor been provided?—*Not up to the present time*. Sewage Disposal Works. Method of Treatment?—*None*.

Summary of Medical Officer's Report for 1914—*Contd.*

What is the character of the Drainage System ?—*Water Carriage. Gravitation to the Sea.*

Drain Testing, Flushing, etc. ?—*Both Drain Testing and Sewer Flushing are carried out constantly.*

Action taken with regard to the Pollution of Streams ?—*The Cleansing and Bottoming of Water Courses and Ditches throughout the District.*

Canal Boats : Number Inspected ?—*None.*

What is the condition of the Bakehouses ?—*Good, receiving regular attention.*

What is the condition of the Slaughter Houses ?—*None.*

What is the condition of the Lodging Houses ?—*None.* Are they Registered ?—*No.*

What is the Sanitary condition of the Schools ?—*Good, one excellent.*

Dairies, Cowsheds, and Milkshops. Are they periodically inspected ?—*Yes.* What is their condition ?—*Very Good.*

Have Regulations been made under the Order of the L.G.B. ?—*Are they enforced ?—In all cases.*

Amount of air space in cubic feet required for each cow ?—*600 cubic feet per cow in cases where the cattle are grazed, and 800 cubic feet where the cattle are stall kept and all new premises.*

Number of Cowkeepers ?—**20.** Number on Register ?—**20.**

Number of Dairymen or Purveyors of Milk (other than Cowkeepers) ?—*None.* Number on Register ?—*None.*

Action taken (if any) as to tuberculous milk ?—

Total amount of Food seized as unfit for Human Consumption ?—*None.*

Number of Carcases and parts of Carcases condemned for Tuberculosis ?—*One.*

Number of Legal Proceedings, and result ?—*None.*

Department of Inspector of Nuisances. Number of Notices served ?—**134.** Nuisances remedied ?—*In all cases.* Number of Legal Proceedings taken and result ?—*None necessary.*

Closet accommodation of the District. Number of Privy Middens ?—**21 Single, 0 Double.** Pail Closets ?—*Five.* Fresh Water

### Summary of Medical Officer's Report for 1914—*Contd.*

Closets ?—**5015**. Waste Water Closets ?—*None*. Number of Privy Middens converted during 1914 ?—**7**. To W.C.'s—**23**. To Pails, etc.—*None*. Number of Pail Closets converted to W.C.'s ?—*None*. Does Council contribute towards the cost of conversion of either privies or pail closets, or both ? If so, how much ?—*Partially, by agreement*.

Smoke. Number of Observations ?—*Many*. Number of Legal Proceedings taken and result ?—*None*. What is the time limit allowed for the emission of black smoke per hour ?—*No time limit*.

Has the Authority adopted—

“ The Infectious Disease (Prevention) Act, 1890 ” ?—*Yes*.

“ The Public Health Acts Amendment Act, 1890 ” ?—*Yes*.

“ The Public Health Acts Amendment Act, 1907 ” ?—*Yes*.

“ The Notification of Births Act, 1907 ” ?—*No*.

Has a Health Visitor been appointed ?—*No*.

Notable Sanitary improvements during 1914—*Construction of Roads in tar macadam ; Extension of Sewers ; Amendment of House Drainage, both Amendments and Reconstruction, etc.*

Chief Sanitary requirements of District—*A Refuse Destructor*.

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## Factories, Workshops, Laundries, Workplaces and Homework.

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### 1.—Inspection.

Including Inspections made by Sanitary Inspectors, or  
Inspectors of Nuisances.

| Premises.                                                                       | Number of    |                  |
|---------------------------------------------------------------------------------|--------------|------------------|
|                                                                                 | Inspections. | Written Notices. |
| Factories (including Factory Laundries) ..                                      | 13           | —                |
| Workshops (Including Workshop Laundries)                                        | 22           | —                |
| Workplaces (Other than Outworkers' premises included in Part 3 of this Report.) | 12           | 2                |
| Total .. ..                                                                     | 47           | 2                |

## 2.—Defects Found.

| Particulars.                                            | Number of Defects. |           |
|---------------------------------------------------------|--------------------|-----------|
|                                                         | Found.             | Remedied. |
| Nuisances under the Public Health Act:—                 |                    |           |
| Want of cleanliness .. .. .                             | 2                  | 2         |
| Want of ventilation .. .                                | —                  | —         |
| Want of drainage of floors (defective Yard pavement) .. | 1                  | 1         |
| Other Nuisances .. .. .                                 | —                  | —         |
| Sanitary Accommodation insufficient .. .. .             | —                  | —         |
| Total .. .                                              | 3                  | 3         |

## 3.—Home Work.

Lists received from neighbouring Authority, twice in the year—  
Outworkers, Women—*Two*.

## 4.—Registered Workshops.

| Workshops on the Register (s. 131) at the end of the year.                            | Number. |
|---------------------------------------------------------------------------------------|---------|
| Important classes of workshops, such as workshop bakehouses, may be enumerated here:— |         |
| Factories .. .. .                                                                     | 16      |
| Workshops .. .. .                                                                     | 24      |
| Workplaces, including Laundries and Bakehouses .. .. .                                | 37      |
| Total number of workshops on Register.. .. .                                          | 77      |

## 5.—Other Matters.

| Class.                                                                                                                                                  |  |  |  |  |  |  |  |  |  | Number.                                                                                    |                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--------------------------------------------------------------------------------------------|------------------------------------|
| Matters notified to H.M. Inspectors of Factories .. .. .                                                                                                |  |  |  |  |  |  |  |  |  | None                                                                                       |                                    |
| Failure to affix Abstract of the Factory and Workshops Act (s. 133) ..                                                                                  |  |  |  |  |  |  |  |  |  | 6                                                                                          |                                    |
| Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5, 1901.) |  |  |  |  |  |  |  |  |  | Notified by H.M. Inspector .. .. .<br><br>Reports (of action taken) sent to H.M. Inspector | 2                                  |
|                                                                                                                                                         |  |  |  |  |  |  |  |  |  |                                                                                            | ( Acknowledged and Notices Served. |
| Other .. .. .                                                                                                                                           |  |  |  |  |  |  |  |  |  | None                                                                                       |                                    |
| Underground Bakehouses (s. 101) :—                                                                                                                      |  |  |  |  |  |  |  |  |  | 2                                                                                          |                                    |
| Certificates granted during the year .. .. .                                                                                                            |  |  |  |  |  |  |  |  |  | None                                                                                       |                                    |
| In use at the end of the year .. .. .                                                                                                                   |  |  |  |  |  |  |  |  |  | 2                                                                                          |                                    |

## Bye-Laws

In force in the District are :—

Bye-laws as to New Streets and Buildings.

Bye-laws as to Houses Let in Lodgings.

Bye-laws as to Lodging Houses.

Bye-laws as to Dairies, Cowsheds and Milk Shops Order, 1885.

Infectious Disease (Prevention) Act, 1890.

Factory and Workshops Act ; Bakehouse Regulations.

Amended Regulations of Dairies, Cowsheds and Milk Shops Order, 1885, came into force June 1st, 1908.

Public Health Acts Amendment Act, 1907. This Council applied for an order putting into force Clause 58 of the above Act.

Public Health Acts Amendment Act, 1907. Notices under Part V. were circulated amongst Lodging House Keepers, December 3rd, 1907.

Public Health Acts Amendment Act, 1907, Section 85 and 86. Regulations re Servants' Registry Offices and Marine Store Dealers.

Bye-laws in respect to Parks and Recreation Grounds, 1907.

Public Health (Tuberculosis) Regulations, 1908.

Notification of "Ophthalmia Neonatorum" (Compulsory), June 11th, 1910.

Housing, Towns Planning, etc., Act, Dec. 3rd, 1909.

Public Health (Tuberculosis) Regulations, 1911, & Feb. 1st 1913.

Bye-laws in respect to Sea Shore, 1911.

I am, Mr. Chairman and Gentlemen,

Your obedient servant,

JAMES HUSKIE,

*Medical Officer of Health.*

# SANITARY INSPECTOR'S REPORT.

1914.

## Disinfection.

The following tables give the particulars and the number of rooms fumigated with sulphur for infectious diseases, etc., in which the Council have disinfected the bedding, etc.

### NUMBER OF ROOMS FUMIGATED.

| Scarlet Fever. | Typhoid Fever. | Measles | Diphtheria | Puerperal Fever, Cancer, Pneumonia | Cleansing. | Tuberculosis | Billets after occupation by soldiers | Total Rooms. |
|----------------|----------------|---------|------------|------------------------------------|------------|--------------|--------------------------------------|--------------|
| 75             | 5              | 6       | 26         | 5                                  | 29         | 12           | 101                                  | 259          |

### NUMBER OF TIMES STOVE USED, AND FOR WHAT PURPOSE.

| Scarlet Fever. | Typhoid Fever. | Measles | Diphtheria | Cancer. | Cleansing. | Tuberculosis | Pneumonia | Total Stove used |
|----------------|----------------|---------|------------|---------|------------|--------------|-----------|------------------|
| 51             | 3              | —       | 22         | 3       | 11         | 8            | 1         | 99               |

The following is the description and number of articles subjected to the dry heat process, for which the stoves have been used :—

|                                           |    |    |    |    |    |    |    |    |             |
|-------------------------------------------|----|----|----|----|----|----|----|----|-------------|
| Beds                                      | .. | .. | .  | .. | .. | .. | .. | .. | 135         |
| Mattresses                                | .. | .. | .. | .. | .. | .. | .. | .. | 60          |
| Blankets, Sheets, Counterpanes, &c.       | .. | .. | .. | .. | .. | .. | .. | .. | 508         |
| Pieces of Bedding, Pillows, Bolsters, &c. | .. | .. | .. | .. | .. | .. | .. | .. | 390         |
| Wearing Apparel                           | .. | .. | .. | .. | .. | .. | .. | .. | 482         |
| Carpets, Rugs, &c.                        | .. | .. | .. | .. | .. | .. | .. | .. | 144         |
| Total No. of Pieces                       |    |    |    |    |    |    |    |    | <u>1719</u> |

In addition to the foregoing, there were many articles of clothing, bedding, etc. (discarded by the troops), destroyed, by request; as well as other articles from this source stoved and disinfected.

The following Schools were fumigated during the year, in Summer and Winter Holidays:

|                                      |     |          |           |
|--------------------------------------|-----|----------|-----------|
| SS. Peter and Paul's Schools (twice) | ... | 8 rooms— | 16        |
| St. Luke's (Boys') School (twice)    | ... | 3        | 12        |
| Halsall (Girls') School (once)       | ... | 6        | 6         |
| Council School (twice)               | ... | 18       | 36        |
| Total rooms                          |     |          | <u>70</u> |

## DECLARATION OF WAR.

OFFICIAL STATEMENT, AS PUBLISHED BY THE FOREIGN OFFICE :—

*“ Owing to the summary rejection by the German Government of the request by His Majesty’s Government for assurances that the neutrality of Belgium will be respected, His Majesty’s Ambassador at Berlin has received his passports, and His Majesty’s Government has declared to the German Government that a state of War exists between Great Britain and Germany as from 11 p.m. on August 4th.”*

Subsequent to the foregoing, the premises in the following list, used as billets, etc., by His Majesty’s troops, have been flushed once, and sometimes twice, daily with hose pipes off the main, during the time the premises were in occupation : also constant and regular visits, together with supervision, instructions, suggestions, and interviews have been made in regard to the premises being kept in a proper sanitary condition, necessary for the maintenance of the health of the troops :—

|                                        |                                     |
|----------------------------------------|-------------------------------------|
| The Alexandra Hall.                    | Merchant Taylors’ Girls’ School.    |
| Parish Hall (St. Luke’s).              | SS. Peter and Paul’s Schools.       |
| Council School.                        | Drill Hall, Coronation Road.        |
| Liberal Club.                          | St. Luke’s Boys’ Schools.           |
| Halsall Girls’ School.                 | “ Ramleh,” Burbo Bank Road.         |
| “ Palatine,” Nicholas Road.            | “ Inverclyde,” Nicholas Road South. |
| “ Colomendy.”                          | “ Coningsby,” Serpentine South.     |
| “ Riverslea,” Serpentine South.        | “ Formby Lodge,” B’sands Rd. West.  |
| “ Amesbury,” Serpentine North.         | “ Mayfield,” and “ Dashwood,”       |
| “ Rosario,” also 8 and 10 Victoria Rd. | Abbotsford Road.                    |
| Wesleyan Hall, Brompton Avenue.        | St. Nicholas’ Hall.                 |
| Church Hall, Brighton Road.            | Recreation Ground Pavilion.         |
| “ Claremont ” Stable Yard.             | “ Clonallon ” Stable Yard.          |
| Ship Inn Stable Yard.                  | Crosby Hotel Stable Yard.           |
| Brighton Road Pavilion.                |                                     |

There were no schools closed through Infectious disease this year.

In addition to the above, books from the “ Carnegie ” Library have been disinfected or destroyed, these having been “ called in ” by the librarian (Miss L. Bartlett), or collected or been returned from houses in which infectious disease occurred.

The disinfecting apparatus in use in this district is a “ Dry Heat Gas Stove,” which has been found to answer all our requirements.

Dairymen and cowkeepers are recommended to have sulphur fumigation applied to their cowsheds for the destruction of flies, spiders, etc., but in the past year none adopted this suggestion.

This practice, if generally adopted, when the cows are out on grass, would no doubt have a very beneficial effect, both in man and beast, as well as the milk supply.

### Mortuaries.

The Mortuary on the shore was not used in the past year, but the Mortuary in Council's store yard was used twice:—

A body. "Found drowned." (How got in water not shewn.)

" "Shot." (By sentry.)

### Sanitary Improvements.

#### NOTICES SERVED.

|               |     |                                              |                                        |                  |     |     |     |     |            |
|---------------|-----|----------------------------------------------|----------------------------------------|------------------|-----|-----|-----|-----|------------|
| Under Section | 19  | ...                                          | ...                                    | " P.H.A.A. Act." | ... | ... | ... | ... | —          |
| "             | 62  | P.H.A., 1875                                 | ...                                    | ...              | ... | ... | ... | ... | —          |
| "             | 91  | P.H.A., 1875,                                | " Abatement of Nuisance "              | ...              | ... | ... | ... | 94  |            |
| "             | 120 | "                                            | " Cleansing after Infectious Disease " | ...              | ... | ... | ... | 30  |            |
| "             | 75  | T.I.C.A., 1847,                              | " Dangerous Buildings, &c."            | ...              | ... | ... | ... | 2   |            |
| "             |     | F.&W.A., 1901,                               | " Whitewash F.&W. "                    | ...              | ... | ... | ... | 4   |            |
| "             |     | Dairies, Cowsheds, and Milkshops Order, 1885 | ...                                    | ...              | ... | ... | ... | 3   |            |
| "             |     | Smoke Abatement                              | ..                                     | ..               | ..  | ..  | ..  | 1   |            |
| Total         |     |                                              |                                        |                  |     |     |     |     | <u>134</u> |

Also 15 letter notices, not included in the foregoing list, as well as 185 letters relating to various defects, nuisances, etc., etc. And many verbal notices were given as to the cleansing of cowsheds, removal of manure, etc.

### Smoke Observations.

Smoke observations for lengthened periods were taken in regard to "excessive smoke," but legal proceedings were found to be unnecessary. No time limit is allowed in this District.

It must be noted that many of the foregoing notices are of a comprehensive nature, and apply to more than one premises. Many sanitary defects, as discovered, were pointed out to the owners or

tenants at the time, which were at once amended and put right without any written notice being served, and for this reason such amendments do not appear in the following list.

It will also be seen from the Tables herewith that in the case of many houses where infectious disease occurred it was unnecessary to serve the owner or occupier with Notice under Sect. 120, as the work required was done voluntarily; also the repair and amendments to drains, as well as other nuisances or defects, were dealt with

The details of the notices in the foregoing tabulated list are as follow :—

## DESCRIPTION OF THE SANITARY AMENDMENT.

### PRIVY DEFECTS.

No. Amended.

- |    |                                                                           |    |
|----|---------------------------------------------------------------------------|----|
| 1. | Foul privies converted into properly constructed water-closets (complete) | 23 |
|----|---------------------------------------------------------------------------|----|

### ASHPITS.

- |    |                                                                                    |   |
|----|------------------------------------------------------------------------------------|---|
| 2. | Ashpits, deep and foul, filled to ground level, and suitably paved or amended, &c. | 7 |
|----|------------------------------------------------------------------------------------|---|

### WATER-CLOSET DEFECTS.

- |     |                                                 |    |
|-----|-------------------------------------------------|----|
| 3.  | Water-closets in yard, open and defective       | 33 |
| 4.  | " " foul, cleansed or replaced                  | 2  |
| 5.  | " " provided with sufficient water supply       | 22 |
| 6.  | " " ventilating shafts or replaced and repaired | 10 |
| 7.  | " " constant ventilation                        | 5  |
| 8.  | " " choked, opened up, and cleansed             | 4  |
| 9.  | " " defective joints repaired                   | 2  |
| 10. | " " and soil pipe base repaired                 | 25 |
| 11. | " " choked, opened up, and cleansed             | 1  |

### WASTE PIPE, &c., DEFECTS.

- |     |                                           |   |
|-----|-------------------------------------------|---|
| 12. | Waste pipes trapped, cleansed or replaced | 9 |
| 13. | defective brickwork repaired              | 9 |

### SUNDRY DEFECTS.

No. Amended.

- |     |                                                     |    |
|-----|-----------------------------------------------------|----|
| 14. | Animals so kept as to be a nuisance, amended        | 1  |
| 15. | Airways to intercepting traps provided              | 4  |
| 16. | Ashpits dilapidated walls, &c., removed or repaired | 8  |
| 17. | Basements cleared of sewage and disinfected         | 14 |
| 18. | Cesspools amended or abolished                      | 1  |
| 19. | Drains choked, opened up and cleansed               | 26 |
| 20. | " reconstructed and amended                         | 17 |
| 21. | " joints defective from gullies repaired            | 18 |
| 22. | Down spouts disconnected or repaired                | 8  |
| 23. | Eaves, gutters, &c., replaced or repaired           | 6  |
| 24. | Foul smells from premises removed                   | 1  |

SUNDRY DEFECTS—*Contd.*

No. Amended.

|     |                                                            |     |     |    |
|-----|------------------------------------------------------------|-----|-----|----|
| 25. | Foul and stagnant water on premises removed or disinfected | ... | ... | 27 |
| 26. | Gullies and drains choked                                  | ... | ... | 9  |
| 27. | " defective replaced                                       | ... | ... | 4  |
| 28. | " fenders repaired                                         | ... | ... | 25 |
| 29. | Intercepting traps cleansed or replaced                    | ... | ... | 11 |
| 30. | Premises cleansed of manure, filth, &c.                    | ... | ... | 3  |
| 31. | " provided with sanitary bins                              | ... | ... | 6  |
| 32. | " cleansed and whitewashed                                 | ... | ... | 1  |
| 33. | " overcrowded                                              | ... | ... | 1  |
| 34. | Public schools disinfected (twice)                         | ... | ... | 4  |
| 35. | Roof, walls, &c. (defective) repaired                      | ... | ... | 3  |
| 36. | Store cisterns cleansed                                    | ... | ... | 36 |
| 37. | Smoke nuisances and effluvium from premises abated         | ... | ... | 1  |
| 38. | Ventilating shafts carried above roof                      | ... | ... | 14 |
| 39. | Ventilation, constant, provided                            | ... | ... | 20 |
| 40. | Walls, damp, amended                                       | ... | ... | 4  |
| 41. | Watercourse, ditches and pits cleansed                     | ... | ... | 1  |
| 42. | Yard pavements repaired and made good                      | ... | ... | 29 |

Inspections, Re-inspections and interviews made in respect to]  
abatement of Nuisances, etc., 952.

N.B.—Many cases were tested with the smoke machine whilst the drains were open, prior to “filling in,” etc., by which means many unknown or unseen defects were disclosed, and the defects, so discovered, were duly made good and put right.

In carrying out the above works of “Reconstructions and Amendments,” the Council instructed their Solicitor and Clerk, Mr. Josiah Dean, in all cases of default, to write and urge the completion of the work required; this was done in all such cases, with the result that it was unnecessary for any proceedings to be taken before the Magistrates.

**Ditches and Watercourses.**

In February and August printed notices were posted throughout the district as usual, directing all occupiers and owners of land, premises, etc., abutting on Ditches and Watercourses, to bottom and cleanse the same; and, although many visits and inspections have been made with this object, and the attention of these occupiers, etc., repeatedly called to this work (when the Ditches and Watercourses are in a low and fit condition), the work is in a great many instances sadly neglected, and not executed at the time and in the manner it ought to be. Such neglect does and must entail loss, damage, extra labour, and inconvenience to those in default, as well as to those who have done their portion of the work at the right and proper time.

### **Smoke Test Applied to Drains.**

During the year 131 tests (66 old drains, 42 new drains, and 23 retests) have been applied to house drains after infectious cases, to defective drains, and to the drains of new houses before occupation.

Forty-eight of the above tests were made in response to applications made either by the tenant or the owner of houses (for which the nominal charge of 5/- is made by the Council). The result has been that in nearly all the cases so tested defects in the drainage were discovered—some being of a serious, others of a less serious nature. Many of these defects could only be discovered by some method of pressure testing, hence the importance of this “test work.” There were 54 certificates issued as to the condition of drains so tested, and notices to amend the discovered defects were issued (or voluntarily carried out) in all cases for amendment or abatement of nuisances.

### **Infectious Disease.**

The drains, gullies, etc., on those premises where infectious disease occurs, are dressed with disinfectants; and on those premises where such diseases are being treated, the dressing is continued twice or three times weekly until the patient is convalescent. For the past year this work entailed 630 visits.

I may say here that after convalescence the drains to such infectious premises are flushed and “tested,” and any amendments required are duly insisted on.

If measures could be adopted, or instituted, to “enforce” all railway carriages, tram cars, or other public vehicles to be thoroughly fumigated and disinfected, in an apparatus properly equipped for this purpose, at regulated periods (under Regulations), not merely sponged and brushed down as at present; also that all carpet beating and cleaning works be dealt with in a like manner, there is no doubt but that it would minimise the spread of many Infectious Diseases.

### **Petroleum Spirit and Carbide of Calcium.**

Four Licenses for the sale and keeping of Petroleum Spirit and three for Carbide of Calcium were issued during the year. Notices were written to all persons selling Petroleum Spirit and Carbide of

Calcium calling attention to the necessity of being Licensed, and all known owners of motor cars were served with notices as to notifying this Authority after the 1st of January that they were so keeping motor cars and petroleum spirit, and such list was submitted to you.

No accidents or fire were reported in the district from the storing and use of petroleum spirit or carbide of calcium.

Many visits have been made to such premises, and the regulations are strictly insisted on ; all precautions being taken to ensure the safe keeping and handling of this dangerous material.

### **Garden Refuse.**

Many occupiers still permit their gardeners and others to "dump" garden and other refuse on vacant lands in the district, to the annoyance (at least) of residents. This practice is a menace to the public health, for such refuse provides the breeding grounds of flies, slugs, snails, etc., which in turn may become carriers of disease.

### **Manure Removal.**

All dairymen and liverymen, etc., were urged to remove all manure regularly, and not to exceed a "fourteen days'" accumulation. Printed handbills were distributed, and repeated visits made, with the object of compelling the frequent removal of such material.

### **Registration of Domestic Servants, etc.**

All known Registry Offices for Domestic Servants, etc., in the district, were visited, and the Regulations insisted on. There are now three such persons on the Register.

### **Flushing.**

All sewers and drains in back passages (where slow gradients occur, or where stoppages were found to exist or in formation) were regularly flushed by means of the portable iron tank, with the attendant good results.

### **Sewer Ventilating Shafts.**

Sewer ventilating shafts, and large lamp columns acting as such, were regularly tested as to their efficiency ; there being now some 78 ventilating shafts and 24 lamp columns used for this purpose on the line of the District Council's sewers. Each shaft was tested as to efficiency three times during the year ; or a total of 202 tests made.

### **Rats.**

Seven complaints were received from occupiers, etc., of houses whose premises were infested with rats. The Council have arrangements with its own employees, who, in their own time, with the use of dogs, ferrets, etc., destroyed a considerable number during the year ; the remuneration being one penny per tail.

The Smoke Machine was requisitioned for the Destruction of Rats on the Council's Ashpit Tips, with good result, 18 being killed, and evidently many more must have been destroyed by this process, as several rats were almost dead on appearing from their runs, and very few have been seen since. However, more may be expected on account of the near proximity to farm land and watercourses.

### **Suspected Anthrax.**

One case of " Suspected Anthrax " was notified by the County Police, who themselves disinfected the premises of such " suspect." The Medical Officer of Health and myself also visited the premises. These premises were lime-washed, the floors washed off with disinfectants, the sewers and drains flushed, and the manure and carcase destroyed under Police supervision.

One case of tuberculosis was reported from a neighbouring Authority ; the premises were visited and arrangements made as to an examination by an expert Veterinary Surgeon, when one cow was condemned at owner's cost, and the premises limewashed and disinfected.

Special Reports, as directed by you, were given both by myself and in conjunction with the Medical Officer of Health.

The Weekly Returns of Infectious Diseases Notification have been duly made to the Local Government Board and the County Council, as well as Quarterly Returns to the latter.

A Census was taken of the District for the purpose of Revising the Estimated Population on the basis of 1911 Census.

Correspondence, interviews, accounts, returns, etc., and matters relative to the abatement of nuisances, and checking of infectious disease, together with matters in the interest of the Public Health, not included in the foregoing tables, etc., received due and careful attention.

### RAINFALL, 1914.

The Monthly and Annual Rainfalls, also Temperatures, for the year 1914, as recorded at the Alexandra Park, Great Crosby; together with a 39 years' Record, as registered by the late T. Mellard Reade, Esq., at Park Corner, Blundellsands, from 1876 to August 24th, 1912, and since continued at the Alexandra Park, Great Crosby, by me, under your direction, are shewn in the following tables :—

The rain gauge is a 5-inch "Snowdon" pattern, fixed 1 foot above ground at a height of 33.81 feet above Ordnance Datum, in latitude 53° 29" N. and longitude 3° 2" W.

| Month.        | Total Depth. | Greatest Fall in 24 Hours. | No. of Days on which .01 ins. or more were recorded | No. of a trace | Days Dry. |
|---------------|--------------|----------------------------|-----------------------------------------------------|----------------|-----------|
| January ...   | 1.47         | January 4 ...              | 14 ...                                              | 2              | 15        |
| February ...  | 1.45         | February 17 ...            | 14 ...                                              | 4              | 10        |
| March ...     | 2.83         | March 20 ...               | 22 ...                                              | 6              | 3         |
| April ...     | .58          | April 4 ...                | 8 ...                                               | 5              | 17        |
| May ...       | 1.97         | May 7 ...                  | 16 ...                                              | 2              | 13        |
| June ...      | 1.55         | June 20 ...                | 11 ...                                              | 2              | 17        |
| July ...      | 4.46         | July 16 ...                | 18 ...                                              | 2              | 11        |
| August ...    | 1.72         | August 25 ...              | 12 ...                                              | 2              | 17        |
| September ... | 3.64         | September 16 ...           | 12 ...                                              | 5              | 13        |
| October ...   | 2.09         | October 25 ...             | 7 ...                                               | 8              | 16        |
| November ...  | 3.01         | November 4 & 13            | 20 ...                                              | 9              | 1         |
| December ...  | 5.16         | December 3 ...             | 25 ...                                              | 4              | 2         |
| Total ...     | 29.93        | Total ...                  | 179 days on which<br>— .01 or more<br>were recorded | 51             | 135       |

During 1914, on 179 days, .01 in. or more of rainfall was recorded, giving 29.94 ins. for the year. On 51 days a "trace" of rain was recorded, and 135 days were "dry."

The wettest day in the year was Sept. 16th, with 1.30 ins.

April's rainfall was only .58 ins., and was the driest April, with the exception of the years 1893 (.29 in.) and 1892 (.17 in.), during the past 39 years.

August, 1914 was the driest for the past 14 years.

The longest "dry" spell (12 days) was from Oct. 1st to Oct. 12th inclusive.

November and December's rainfall, 8.17 ins., constituted almost a third of the year's rainfall.

The rainfall for the year, 29.94 ins., shews a slight increase over the average for 39 years, viz., 29.74 ins.

The following table shews the months, arranged in order of "wetness," averaged for the past 39 years:—

|               |     |     |     |     |                      |
|---------------|-----|-----|-----|-----|----------------------|
| October ...   | ... | ... | ... | ... | 3.33 inches.         |
| August ...    | ... | ... | ... | ... | 3.26 "               |
| November ...  | ... | ... | ... | ... | 2.96 "               |
| December ...  | ... | ... | ... | ... | 2.92 "               |
| July ...      | ... | ... | ... | ... | 2.68 "               |
| September ... | ... | ... | ... | ... | 2.59 "               |
| June ...      | ... | ... | ... | ... | 2.27 "               |
| January ...   | ... | ... | ... | ... | 2.25 "               |
| March ...     | ... | ... | ... | ... | 1.99 "               |
| May ...       | ... | ... | ... | ... | 1.95 "               |
| February ...  | ... | ... | ... | ... | 1.90 "               |
| April ...     | ... | ... | ... | ... | 1.67 "               |
| Total ...     |     |     |     |     | <u>29.74 inches.</u> |

The foregoing Record has been kept in accordance with the Rules of the British Rainfall Organization, the gauge being emptied at nine o'clock each morning, and the amount of rain measured in a certified graduated measure, and entered to the previous day.

# RAINFALL AT BLUNDELLSANDS

FOR THE PAST 39 YEARS, 1876 to 1915.

| Year.                              | Jan. | Feb. | Mar. | April | May  | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total<br>Inches<br>per Year. |
|------------------------------------|------|------|------|-------|------|------|------|------|-------|------|------|------|------------------------------|
|                                    | Ins. | Ins. | Ins. | Ins.  | Ins. | Ins. | Ins. | Ins. | Ins.  | Ins. | Ins. | Ins. |                              |
| 1876                               | .99  | 2.84 | 2.19 | 2.84  | .54  | 1.99 | 2.29 | 3.03 | 4.14  | 2.53 | 5.21 | 4.66 | 33.25                        |
| 1877                               | 5.00 | 3.02 | 2.30 | 2.00  | 2.97 | 1.50 | 5.48 | 4.32 | 3.24  | 3.27 | 6.25 | 3.79 | 43.14                        |
| 1878                               | 3.09 | 1.33 | 1.62 | 1.48  | 3.33 | 2.15 | .81  | 4.23 | 3.77  | 2.74 | 2.27 | 2.13 | 28.95                        |
| 1879                               | 1.58 | 2.58 | 1.23 | 2.49  | 2.01 | 4.34 | 3.41 | 5.77 | 3.25  | 1.48 | 1.11 | 1.97 | 31.22                        |
| 1880                               | .82  | 2.53 | 2.31 | 1.20  | 2.32 | 2.74 | 4.87 | 1.58 | 3.33  | 4.50 | 4.01 | 5.63 | 35.84                        |
| 1881                               | .68  | 3.95 | 2.69 | 1.59  | 3.14 | 3.03 | 2.50 | 4.04 | 1.50  | 2.75 | 2.63 | 2.96 | 31.46                        |
| 1882                               | 2.43 | 1.54 | 2.37 | 3.01  | 1.26 | 3.16 | 5.38 | 3.04 | 2.44  | 2.64 | 4.81 | 3.81 | 35.89                        |
| 1883                               | 3.29 | 1.80 | 1.20 | .94   | .67  | 2.33 | 2.97 | 2.20 | 4.82  | 5.00 | 2.68 | 1.64 | 29.54                        |
| 1884                               | 3.36 | 2.25 | 2.37 | 1.11  | 1.31 | .71  | 4.41 | 2.40 | 2.29  | 1.66 | 1.82 | 3.06 | 26.75                        |
| 1885                               | 1.55 | 2.90 | 2.21 | 2.09  | 1.49 | 1.62 | 1.57 | 2.19 | 4.27  | 6.06 | 3.20 | 1.91 | 31.06                        |
| 1886                               | 3.65 | 1.28 | 1.79 | 1.78  | 4.87 | 1.33 | 4.59 | 1.58 | 3.41  | 3.99 | 3.02 | 4.82 | 36.11                        |
| 1887                               | 2.56 | .64  | 1.59 | .62   | 2.43 | 1.34 | 1.17 | 2.44 | 3.70  | 3.07 | 1.53 | 2.22 | 23.31                        |
| 1888                               | 1.39 | .76  | 2.46 | 1.22  | .52  | 1.92 | 5.09 | 3.37 | .92   | 2.05 | 4.79 | 1.50 | 25.99                        |
| 1889                               | .75  | 2.18 | 2.07 | 3.11  | 2.61 | .70  | 2.60 | 3.80 | 2.23  | 3.02 | 2.17 | 3.41 | 28.65                        |
| 1890                               | 3.70 | .73  | 1.97 | 1.03  | 1.98 | 2.36 | 2.27 | 4.12 | 1.89  | 2.28 | 6.08 | .73  | 29.14                        |
| 1891                               | 1.46 | .15  | 1.22 | 2.31  | 1.83 | 4.18 | 2.88 | 7.39 | 4.16  | 2.68 | 3.88 | 5.15 | 37.29                        |
| 1892                               | 3.17 | 1.97 | 1.25 | 1.46  | 2.86 | 2.92 | 2.10 | 3.40 | 2.62  | 6.38 | 2.49 | 1.90 | 32.52                        |
| 1893                               | 1.09 | 3.13 | .38  | .29   | 1.47 | 1.36 | 3.29 | 2.16 | 3.44  | 2.77 | 1.33 | 3.48 | 24.19                        |
| 1894                               | 1.94 | 3.32 | 1.55 | 1.72  | 2.02 | 2.09 | 2.33 | 3.30 | .84   | 3.43 | 2.52 | 2.64 | 27.70                        |
| 1895                               | 2.68 | .31  | 2.36 | 1.60  | .62  | .79  | 3.67 | 2.90 | 1.12  | 5.61 | 2.48 | 2.29 | 26.43                        |
| 1896                               | 1.03 | 1.14 | 3.36 | 1.22  | .27  | 2.75 | 2.59 | 2.05 | 4.29  | 4.32 | 1.65 | 4.08 | 28.75                        |
| 1897                               | 1.00 | 2.20 | 2.45 | 2.53  | 1.32 | 4.12 | 1.00 | 4.25 | 3.61  | 1.56 | 4.34 | 2.99 | 31.37                        |
| 1898                               | 2.03 | 1.78 | .62  | 1.73  | 3.73 | 1.97 | .35  | 4.18 | 1.33  | 2.64 | 2.97 | 1.86 | 25.19                        |
| 1899                               | 3.48 | 1.37 | 1.78 | 2.48  | 1.96 | 1.71 | 1.71 | 1.03 | 3.64  | 2.47 | 1.25 | 3.17 | 26.05                        |
| 1900                               | 4.20 | 2.97 | 1.07 | 1.13  | 1.75 | 2.52 | .79  | 6.90 | .80   | 3.29 | 3.69 | 3.01 | 32.12                        |
| 1901                               | 2.19 | 1.43 | 1.38 | 1.28  | .93  | 1.49 | 1.43 | 2.56 | .94   | 2.87 | 3.35 | 3.31 | 23.16                        |
| 1902                               | 1.61 | 1.81 | 1.75 | 1.49  | 3.23 | 1.85 | 2.05 | 1.79 | .72   | 2.85 | 1.62 | 2.05 | 22.82                        |
| 1903                               | 2.12 | 2.05 | 3.30 | 1.72  | 2.59 | 2.19 | 1.96 | 3.71 | 4.41  | 6.88 | 2.90 | 1.58 | 35.41                        |
| 1904                               | 2.19 | 4.25 | 1.60 | 1.12  | 1.85 | 1.20 | .96  | 2.95 | 2.66  | 1.96 | 1.70 | 2.85 | 25.29                        |
| 1905                               | 1.16 | 1.09 | 2.87 | 1.96  | .28  | 1.54 | 1.94 | 2.71 | 1.45  | 2.76 | 3.91 | .38  | 22.05                        |
| 1906                               | 4.31 | 2.15 | 2.13 | .79   | 2.52 | 1.53 | .96  | 2.97 | 1.38  | 4.90 | 1.94 | 2.89 | 28.47                        |
| 1907                               | 1.02 | 1.38 | 1.90 | .95   | 2.82 | 4.98 | 2.14 | 2.99 | .59   | 3.99 | 2.68 | 2.47 | 27.91                        |
| 1908                               | 1.91 | 2.47 | 2.68 | 2.65  | 2.48 | 2.04 | 3.70 | 3.22 | 3.18  | 1.96 | 2.50 | 2.04 | 30.83                        |
| 1909                               | 1.90 | .85  | 2.41 | 2.53  | 1.03 | 2.87 | 4.26 | 2.96 | 2.52  | 3.99 | 1.26 | 5.81 | 32.39                        |
| 1910                               | 2.89 | 2.55 | .64  | 2.29  | 2.31 | 4.13 | 3.54 | 3.26 | .37   | 3.47 | 4.89 | 2.61 | 32.95                        |
| 1911                               | .70  | 1.88 | 1.08 | 1.81  | .82  | 2.62 | .42  | 2.98 | 4.77  | 2.55 | 2.11 | 3.72 | 25.46                        |
| 1912                               | 3.93 | 1.23 | 4.02 | .17   | 1.74 | 2.76 | 4.19 | 5.58 | .98   | 3.91 | 2.18 | 1.97 | 32.66                        |
| 1913                               | 3.47 | 0.81 | 2.89 | 2.78  | 2.24 | 2.05 | 2.41 | 2.00 | 2.26  | 2.21 | 3.13 | 2.32 | 28.58                        |
| 1914                               | 1.47 | 1.45 | 2.83 | .58   | 1.97 | 1.55 | 4.46 | 1.72 | 3.64  | 2.09 | 3.01 | 5.16 | 29.94                        |
| Monthly<br>average for<br>39 years | 2.25 | 1.90 | 1.99 | 1.67  | 1.95 | 2.27 | 2.68 | 3.26 | 2.59  | 3.30 | 2.96 | 2.92 | 29.74                        |

Average yearly Rainfall for the past 39 years is 29.74 inches.



## Details of the Monthly Reports during the past year.

### January, 1914.

RAINFALL (as registered in the Alexandra Park, Great Crosby).—During the month of January, 1914, the registered rainfall was 1.47 inches, which is a very small quantity for the month of January on comparing it with the average rainfall for the past 39 years, viz., 2.27 inches. The wettest day occurred on the 8th inst., with .38 inch. 14 days registered .01 inch or more. 2 days registered a trace. 15 days were dry, 13 of which were dry consecutively, viz., 11th to 24th, excepting the 14th and 17th, when a trace was noted. Hail occurred on January 5th, snow on the 14th, and frost on 9 days, viz., 1st, 7th, 12th, 14th, 15th, 16th, 19th, 20th, 23rd and 24th Jany.

TEMPERATURE (per Stevenson Screen).—The mean temperature for the month (31 days), as registered, was 39.53 degrees, as against 42.90 degrees last month and 39.23 degrees for January, 1913. The highest mean temperature was 47.75 degrees on the 9th. The lowest mean temperature was 31.5 degrees on the 1st. The maximum temperature registered was 54 degrees on January 31st, and the minimum temperature 21 degrees on January 1st.

### February, 1914.

RAINFALL (as registered in the Alexandra Park, Great Crosby).—During the month of February, 1914 (28 days), the registered rainfall was 1.45 inches, this rainfall being considerably below the average for the past 39 years, viz., 1.91 inches. The wettest day occurred on the 17th February. 14 days registered .01 in. or more. A trace was registered on 4 days. 10 days were dry, of which the first six days of the month were dry consecutively. Frost occurred on the 24th and 25th February.

TEMPERATURE (per Stevenson Screen).—The mean temperature for the month (28 days), as registered, was 45.24 degrees, as against 39.53 degrees last month and 41.42 degrees for February last year. The highest mean temperature was 54 degrees on the 3rd. The lowest mean temperature was 37.25 degrees on the 24th and 25th. The maximum temperature registered was 59 degrees on the 11th. The minimum temperature registered was 28.5 degrees on the 25th.

### March, 1914.

RAINFALL (as registered in the Alexandra Park, Great Crosby).—During the month of March, 1914 (31 days), the registered rainfall was 2.83 inches; this compares with last year, viz., 2.89 inches, though both considerably exceed the average for the past 39 years, viz., 1.99 inches. The wettest day occurred on March 20th with .32 inch. 22 days registered .01 or more. 6 days recorded a “trace” and three days were dry, viz., March 21st, 22nd, and 27th. Snow, hail, frost, thunder, etc., occurred on March 9th, 10th, 11th, 17th, 19th (thunder), 20th and 27th. Frost on the 11th, 20th and 28th March.

TEMPERATURE (per Stevenson Screen).—The mean temperature for the month (31 days), as registered, was 43.8 degrees, as against 45.24 degrees last month and 43.19 degrees for the month of March last year. The highest mean temperature recorded was 52.5 degrees on March 30th. The lowest mean temperature recorded was 37.75 degrees on March 10th. The maximum temperature registered was 60 degrees on March 30th and the minimum 29.5 degrees on March 28th.

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### April, 1914.

RAINFALL (as registered in Alexandra Park, Great Crosby).—During the month of April, 1914 (30 days), the registered rainfall was .58 inch, being an exceptionally low rainfall. Only on two occasions during the past 39 years has it been lower, viz., 1893, .29 inch, and 1912, .17 inch, the average for the past 39 years in this district 1.67 inches. The wettest day occurred on April 4th with .25 inch. Eight days registered .01 or more. Five days recorded a trace, and seventeen days were dry, seven of which were consecutively dry, viz., April 15th to 21st inclusive. Frost occurred on the 15th April.

TEMPERATURE (per Stevenson Screen).—The mean temperature for the month (30 days) as registered, was 49.76 degrees, as against 43.8 degrees last month and 46.67 degrees for this month last year. The highest mean temperature recorded was on April 20th, 56.25 degrees, and the lowest mean temperature recorded was 42.25

degrees on April 15th. The maximum temperature registered was 70 degrees on the 21st, and the minimum temperature registered was 31.5 degrees on the 15th April.

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### May, 1914.

RAINFALL (as registered in Alexandra Park, Great Crosby).—During the month of May, 1914 (31 days), the rainfall registered was 1.97 inches, which is quite an average rainfall, seeing that the average for May during the past 39 years is 1.95 inches in this district. The wettest day occurred on May 7th with .30 inch. Sixteen days registered .01 or more inches. Two days registered a trace, and eight days were dry consecutively, viz., 14th to 21st May inclusive.

TEMPERATURE (per Stevenson Screen).—The mean temperature for the month (31 days), as registered, was 51.04 degrees, as against 49.76 degrees last month and 52.16 degrees for this month last year. The highest mean temperature recorded was on May 21st with 61.5 degrees, and the lowest on May 2nd with 43.75 degrees. The maximum temperature registered was 68 degrees on May 16th, and the minimum on May 2nd with 31.5 degrees (frost).

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### June, 1914.

RAINFALL (as registered in the Alexandra Park, Great Crosby).—During the month of June, 1914 (30 days), the registered rainfall was 1.55 inches, which is a very low one when compared with the 39 years' average rainfall of June month in this district, viz., 2.38 inches. The wettest day was June 20th, when .41 inch was registered. Eleven days registered .01 inch or more. On two days a "trace" of rain was registered. Seventeen days were dry, viz., 2nd and 3rd, 13th to 19th and 23rd to 30th inclusive. Hail fell on the 6th and thunder on the 10th June.

TEMPERATURE (per Stevenson Screen).—The mean temperature for the month of June (30 days) was 58.22 degrees, as against 51.04 last month and 57.51 degrees for this period last year. The highest mean temperature recorded was on June 30th, viz., 67.75 degrees, and the lowest on June 8th, viz., 47.5 degrees. The maximum temperature registered was 77 degrees on the 14th, and the minimum 40 degrees on June 8th.

### July, 1914.

RAINFALL (as registered in the Alexandra Park, Great Crosby).—During the month of July, 1914 (31 days), the registered rainfall has been 4.46 inches, which is a very heavy one for July month when compared with the average for the past 39 years, viz., 2.63 inches, and has only been exceeded on five occasions during that long period, viz., in the years 1877, 1880, 1882, 1886 and 1888. Eighteen days registered .01 or more, the wettest day during the month was July 16th, when 1.05 inches was registered. Two days registered a trace, and eleven days were dry. Thunder occurred on the 1st, 2nd and 12th July.

TEMPERATURE.—The average mean temperature for July was 61.44 degrees, as against 58.22 degrees last month and 59.16 degrees for this month last year. The highest mean temperature recorded was the same on July 1st, 20th and 21st, viz., 68 degrees, and the lowest 54 degrees on the 25th. The maximum temperature recorded was 81 degrees on the 1st, and the minimum on July 4th, viz., 45 degrees.

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### August, 1914.

RAINFALL (as registered in the Alexandra Park, Great Crosby).—During the month of August, 1914 (31 days), the registered rainfall has been 1.72 inches, which is an exceptionally low average for August month, and it may be noted that it has only been less on three occasions during the past 39 years, viz., 1880, 1.58 inches, 1886, 1.58 inches, and 1899, 1.03 inches. Twelve days registered .01 or more; the wettest two days were August 7th, .31 inch, and August 25th, .31 inch. Two days registered a trace, and seventeen days were dry from, August 10th to the 20th were dry consecutively.

TEMPERATURE.—The average temperature for the month was 61.41 degrees, as against 61.44 last month and 59.94 degrees for this month last year. The highest mean temperature recorded was on August 14th, giving 69.75 degrees, and the lowest 56 degrees on the 5th August. The maximum temperature recorded was 81.5 degrees on August 14th, and the minimum 46 degrees on the 28th August.

### September, 1914.

RAINFALL (as registered in the Alexandra Park, Great Crosby).—During the month of September, 1914 (30 days), the registered rainfall was 3.64 inches, this being an excessive quantity compared with the average rainfall for the past 39 years in this district, viz., 2.56 inches, although 3.64 inches has been exceeded on several occasions during that long period. Twelve days registered .01 or more, the wettest day, 1.30 inches, occurred on September 16th. On five days a trace occurred, and thirteen days were dry, from the 1st to 7th and the 23rd to 26th inclusive were dry consecutively.

TEMPERATURE.—The average temperature during September was 57.22 degrees, as against 61.41 degrees last month and 57.58 degrees for this month last year. The highest mean temperature recorded was on the 1st, registering 64.75 degrees, and the lowest 47.25 degrees on the 21st September. The maximum temperature recorded was 75 degrees on the 7th, and the minimum 35.5 degrees on the 21st September.

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### October, 1914.

RAINFALL (as registered in the Alexandra Park, Great Crosby).—During the month of October, 1914 (31 days), the rainfall registered (per 5 in. "Snowdon" Rain Gauge) was 2.09 inches, being a very low rainfall indeed, as compared with the average rainfall for October during the past 39 years in this district, viz., 3.33 inches. The month's rainfall has only been less on six occasions in this long period, viz., the years 1879, 1884, 1888, 1897, 1904 and 1908. Seven days registered .01 inch or more. October 25th and 27th registered .72 and .71 inches respectively, hence these two days registered the bulk of the rainfall. Eight days registered a "trace," and sixteen days were "dry," of which October 1st to the 12th inclusive were dry consecutively. Fog occurred on the 14th and 23rd October, and thunder on the 27th.

TEMPERATURE (per Stevenson Screen).—The average temperature during October was 51.43 degrees, as against 57.22 degrees last month and 52.12 degrees for the same month last year. The highest mean temperature recorded was on the 2nd October, viz., 58.25

degrees, and the lowest 44.75 degrees on the 29th. The maximum temperature recorded was 61.5 degrees on October 3rd, and the minimum 35 degrees on the 19th.

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### November, 1914.

RAINFALL (as registered in the Alexandra Park, Great Crosby).—During the month of November, 1914 (30 days), the rainfall registered (per 5 in. "Snowdon" Rain Gauge) was 3.01 inches, which is practically a normal rainfall for this month in this district, as the average for this month during the past 39 years is 2.96 inches; but it must be noted that during this long period many months have been less and some a great deal more. Two days, viz., November 4th and 13th. .35 inches were recorded. Twenty days .01 inch or more were registered. A "trace" occurred on 9 days and one day only was "dry." Hail occurred on the 1st of November. Frost on the 17th, 18th, 19th, 21st, 22nd, 23rd and 24th, and fog on the 19th, 20th and 23rd.

TEMPERATURE (as per Stevenson Screen).—The average temperature during November was 45.13 degrees, as against 51.43 degrees last month and 47.97 degrees for this month last year. The highest mean temperature recorded was on November 9th, 54.25 degrees, and the lowest 32.25 degrees on the 21st. The minimum temperature recorded was 25 degrees on the 18th November.

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### December, 1914.

RAINFALL (as registered in the Alexandra Park, Great Crosby).—During the month of December (31 days) the rainfall registered (per 5 in. "Snowdon" Rain Gauge) was 5.16 inches, which is an exceedingly heavy one, being greater than any month during the year, and for the month of December has only been exceeded twice during the past 38 years, viz., in the years 1880 with 5.65 inches and 1909 with 5.81 inches. The wettest day during the month was on December 3rd, .79 inches. Two days only were dry, and four days shewed a trace, hence the remaining 25 days were wet. Thunder occurred on the 1st and 28th December, frost on the 10th, 11th, 21st, 22nd, 23rd, 24th, 25th, 26th, 28th, 29th and 30th December, and snow on the 27th, and very thick fog on December 14th, 24th and 25th. The rainfall for the year in the district being 29.9 inches.

TEMPERATURE (as registered per Stevenson's Screen).—The average mean temperature for the month of December has been 40.54 degrees, as against 45.13 degrees last month and 42.91 degrees for this month last year. The highest mean temperature recorded was on December 3rd, 47.75 degrees, and the lowest 31 degrees on the 22nd. The maximum temperature, 53 degrees, occurred on the 2nd, and the minimum on the 23rd December, 24 degrees.

### Temperature.

The temperature read at 9 a.m. daily, as recorded in a "Stevenson" Screen, per the "Maximum" and "Bifurcated Minimum" Thermometers, fixed at 4 feet 6 inches above the grass level.

|               | Maximum.<br>A. | Minimum.<br>B. | — Mean of A and B. — |               |
|---------------|----------------|----------------|----------------------|---------------|
|               |                |                | 1914.                | 1913.         |
| January ...   | 43.69 Degrees  | 35.35 Degrees  | 39.53 Degrees        | 39.23 Degrees |
| February ...  | 50.51 "        | 39.96 "        | 45.24 "              | 41.42 "       |
| March ...     | 48.82 "        | 38.87 "        | 43.88 "              | 43.19 "       |
| April... ..   | 57.31 "        | 42.21 "        | 49.76 "              | 46.67 "       |
| May ...       | 57.48 "        | 44.59 "        | 51.04 "              | 52.16 "       |
| June ...      | 66.28 "        | 50.16 "        | 58.22 "              | 57.51 "       |
| July ...      | 70.08 "        | 54.29 "        | 61.44 "              | 59.16 "       |
| August ...    | 69.61 "        | 53.46 "        | 61.41 "              | 59.95 "       |
| September ... | 61.23 "        | 49.08 "        | 57.22 "              | 57.58 "       |
| October ...   | 56.62 "        | 46.24 "        | 51.43 "              | 52.12 "       |
| November ...  | 50.45 "        | 39.81 "        | 45.13 "              | 47.97 "       |
| December ...  | 45.40 "        | 35.83 "        | 40.54 "              | 42.91 "       |

The Maximum,  
Minimum and  
Mean Temper-  
atures for the

year 1914 ... 56.45 Degrees 44.16 Degrees 50.40 Degrees 49.98 Degrees

The highest maximum temperature registered was 81.5 degrees on August 14th.

The lowest minimum temperature was, on January 1st, 1914, viz., 21 degrees.

There is nothing much to particularise in this year's Record, but the absence of continued extreme heat and continued extreme cold.

I have the honour to remain,

Mr. Chairman and Gentlemen.

Your obedient servant,

SAMUEL WILSON, M.San.I.Ass'n, M.R.I.P.H.,

*Inspector of Nuisances, etc.*

January, 1915.

